The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 673.---Vol. XVIII. LONDON, SATURDAY, JULY 15, 1848. [Price 6d.

VALUABLE TIN MINE, IN ST. JUST, FOR SALE, BY PUBLIC AUCTION.—TO BE SOLD, in one lot, at the THREE TUNS HOTEL, PENZANCE, on Tuesday, the 18th day of July next, all that

VALUABLE MINE SETT,

called WHEAL BOSCEAN, with all MACHINERY, MATERIALS, &c., thereunto belonging, all in excellent working order, the same consisting of

1 36-in. cylinder DRAFT-ENGINE, with boiler, complete, on the newest construction.
1 24-in. single WINDING-ENGINE, boiler, fly-wheel, cage, &c., complete.
375 Fathoms FLAT-RODS—about
200 Fathoms PITWORK, varying from 4 inches to 9 inches, together with every requisite for working the mine.

This mine, which is in full course of working, and has produced considerable profit to the adventurers, is only offered for sale by the present shareholders in consequence of the death and bankruptcy of some of their co-partners; and is situate in one of the best parishes in the county of Cornwall for the produce of tin—there being, too, immediately adjoining the mine, a powerful stream of water and stamps to return the tin ore at an exceedingly small expense. J. B. MERIFIELD, Auctioneer.

Penzance, June 29, 1848. *The Sale to commence at Three p.m.*

VALUABLE COLLIERY PLANT—At EVENWOOD and GORDON, near WEST AUCKLAND, in the county of DURHAM.

Mr. GEORGE HARDCASTLE is instructed to SELL, BY AUCTION, on Monday, the 24th July, 1848, and following days, the whole of the

VALUABLE COLLIERY PLANT:

ENGINES, RAILWAYS, WAGGONS, TRAM-PLATES, PUMPS, SCREWS, APPARATUS, Storehouse stock, contents of joiners' and blacksmiths' shops, metal, iron, timber, &c., and all the other articles used in and about a large colliery establishment.

The Sale to commence at Ten for Eleven each day.—Refreshments for purchasers.

Catalogues on the 12th July.—Apply to Wm. Brogden, Esq., Stockton; Mr. Barker, Coxhoe; or to the auctioneer, Newcastle and Sunderland.

CLACKMANNAN COAL-WORKS FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, the LEASE of the going

COLLIERY OF CLACKMANNAN,

near the town of Clackmannan, on the FRITH OF FORTH, with the whole MACHINERY, ENGINES, WAGGONS, UTENSILS, &c., on the works.

The COLLIERY is well situated for commanding an extensive sale of coal and ironstone, both by land and shipping. The Stirling and Dunfermline Railway passes through the entire fields, having a station at the works, and, when completed, will afford direct access to the Forth Iron-Works on the east, and to Stirling, Crieff, and Perth, and the Vales of the Allan and Earn, by the Scottish Central Railway on the west. There is a short railway leading from the pits direct to the Devon Iron-Works, and also a railway belonging to the works, leading from the various pits to Clackmannan Pow, the colliery shipping station on the Frith of Forth, excellently adapted for the shipping trade.—Whether by land or water, greater facilities for an extensive business can seldom be obtained. The average out-put per annum, for the last seven years, has been upwards of 60,000 tons; and it is believed that, under proper management, an active capitalist might double that amount.

The COAL-FIELDS, which are almost inexhaustible, consist of various seams—chiefly SPLINT and CHERRY; the former of first-rate quality for making iron, and for all steam purposes—the latter being of well-known superior quality for household purposes, and both bringing high prices in the market. The seams are of very moderate depth, and, from their thickness, are all easily wrought.

There are also BANDS of superior IRONSTONE above several of the seams of coal, which can be wrought to great advantage along with the coal; besides, one of the seams contains a stratum of BLACK-BAND IRONSTONE, averaging about 6 in. in thickness.

The lease has 23 years to run, and the rent, or royalty, is moderate.

To enterprising capitalists a more eligible investment is not to be met with.

Full particulars, as to the nature and extent of the coal-fields and state of the works, &c., will be obtained on application to John Williamson, Esq., mining engineer, Fingal-place, Edinburgh; or to Mr. James R. Wilson or Mr. Lyell, at the works.

Sealed offers to be lodged with John Donald, writer, Alloa, on or before Saturday, the 22d day of July next, at Twelve o'clock noon.—Alloa, June 10, 1848.

EXTENSIVE AND VALUABLE MINERAL PROPERTY AND IRON-WORKS FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT,

THE VENALLT COAL AND IRON-WORKS,

Situate on the south side of the RIVER NEATH, GLAMORGANSHIRE, about 8 miles from the port of Neath, and 14 from the port of Swansea, with all the necessary appendages for carrying on the smelting of iron, and an extensive shipping trade of stone coal and stone coal culm.

The property comprises long leases of coal and ironstone, extending over about 3000 acres of land, in a ring fence, which are taken on favourable terms. The coal is anthracite, and three veins of an aggregate thickness of about 25 feet, are effectually opened by level, for the supply of 100 to 200 tons per day.

The ironstone veins are abundant and rich, and sufficiently opened by level to yield an ample supply for three furnaces. There is also valuable black-band extending over a large acreage.

The works consist of an engine-house for a pair of engines, one 50-horse high-pressure blowing-engine, two blast-furnaces, with all the necessary hot-blast stoves, casting-houses, foundry, finery, &c.

The works and colliery are in operation, and any persons who may be desirous of purchasing, will be treated with on liberal terms.

Reports recently made on the property, by Messrs. John Southan, of Bilston, and W. P. Struvé, of Swansea, may be seen on application to Messrs. Jevons and Wood, Neath; Messrs. Llewellyn and Randall, solicitors, Neath; or to Messrs. Rowland, Hacon, and Rowland, solicitors, 38, Threadneedle-street, London.

HERODSCOOMBE MINE.—FOR SALE, BY PRIVATE CONTRACT, HERODSCOOMBE MINE MATERIALS, either together or in separate lots, consisting of—

3 9-feet 7-inch pumps	1 Balance-bob
1 9-feet 6-inch working barrel	1 Shaft-bob
1 6-feet 6-inch doorpiece	2 Traveller-bobs
1 9-feet 6-inch windbore	Horizontal wood sweep-rod
1 Horse-whim	30 Fathoms 2-inch square iron-rods
2 4-feet whim-shieves	2 Winze kibbles
2 Horse kibbles	1 Large stool—and

A 16-inch cylinder DIRECT DOUBLE-ACTING ROTARY STEAM-ENGINE and BOILER, complete, with pumping and drawing apparatus attached.

This engine is in excellent condition—was erected new, about 18 months since, and the rotary and pumping apparatus about nine months, from the drawings, and under the superintendence of Messrs. Hocking and Loam, engineers; and, for cheapness of construction, efficiency, and economy, has given the most entire satisfaction.

Parties in want of an engine to sink 40 or 50 fathoms for trial, will find this one well adapted for that purpose; and should the trial prove satisfactory, and a larger pumping-engine be required, this can be applied wholly to drawing and crushing, with no expense, as her construction will admit of her being first placed in a proper position, at a distance from the shaft.

All particulars may be had of Mr. Matthew Loam, engineer, Liskeard, to whom all tenders, stating the highest prices, must be addressed.

TO BE SOLD, OR LET, a valuable COAL MINE, in the township of GREAT HARWOOD, in the county of Lancaster. The mine has been recently proved, and found to be 3 feet 2 inches in thickness, and of excellent quality; it is commonly called, or known, by the name of the UPPER MOUNTAIN MINE, and extends over about 1000 statute acres, which will be divided into suitable lots.

The property is situated between the towns of Blackburn and Clitheroe, and is intersected by a branch of the East Lancashire Railway.

A section of the borings may be seen, by applying to Mr. Boosie, Rufford-hall, Ormskirk; or to Mr. Whittle, coal viewer, Charnock Richard, Chorley—to either of whom proposals may be sent.

ASSAYING AND ANALYSIS.—Mr. MITCHELL begs to inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of all PRODUCTS, metallurgical and manufacturing, at his LABORATORY,

23, *HAWLEY-ROAD, KENTISH TOWN, LONDON,*

to which address communications are to be forwarded.—Instruction in all branches of assaying and analysis as usual.

ADCOCK'S PATENT SPRAY PUMP.—This important INVENTION having been PERFECTED, and brought into SUCCESSFUL PRACTICAL OPERATION, the PATENTEE is ready to RECEIVE, and to execute, ORDERS.—Apply to Henry Adcock, C.E., at his offices, No. 2, Moorgate-street, London, where pamphlets, descriptive of the invention, may be had; at the office of the *Mining Journal*, 26, Fleet-street; and through any respectable bookseller—price 6d.

PATENT ALKALI COMPANY'S IRON PAINT.—This PAINT, now first offered to the public, is the PRODUCT of a PATENT PROCESS, and possesses VALUABLE and PECULIAR QUALITIES, not otherwise attainable. Its colour is a purple-brown—it is perfectly innocuous—is far more durable than lead paint, and two coats are fully equal to three of any other paint. A single coat will be sufficient to demonstrate this. It dries rapidly, and its durability is very great.

From its chemical composition, it is especially, and above all other paints, adapted to covering iron; also wood, and stuccoed, or brick walls. The peculiar oxidation of the base of this paint makes it impossible that further change should take place in its composition. Its identity with iron secures it from galvanic action, so injurious to the durability of lead paints on iron work. It has been exposed on shipping to the action of seawater and the sulphuretted hydrogen, so prevalent in sea-ports and tidal harbours, for three years, without change.

Its *cheapness* and *strength* render it admirably adapted for iron railings, farm buildings, and shipping. It will also cover creosoted timber. Price, by the ton, £20, delivered in London. All orders to be addressed to the offices of the company, 20, Fenchurch-street, London; where testimonials may be seen as to the value of the paint.

EVANS, BROTHERS, Agents.

VALUABLE INVESTMENT.—PARTNERSHIP or LICENSES FOR DISTRICTS OR ENTIRE COUNTIES.

Under British and Foreign Letters Patent.

HUTCHISON & CO.'S INDURATED AND IMPERVIOUS STONE, CHALK, SAND, PLASTER OF PARIS WORKS, CARTON ROOF SHEETING, AND WOOD, &c.

The produce supersedes all other building and decorative materials, for richness of effect, cheapness, and perfect durability.—Specimens to be seen at the Chief Offices, East Temple Chambers, 2, Whitefriars-street, Fleet-street, London; also at the Indurated Sandstone Works, Tonbridge Wells, Kent; or *à la Maladrérie*, near Caen, France.

All particulars afforded at H. and Co.'s offices; or of Mr. William Hutchison, Castle Hotel, Tonbridge Wells, Kent.

PATENT PNEUMATIC APPARATUS for the WORKING OF MINES—for the ASCENT and DESCENT of MINERS INTO PITS—EXTRACTING ORES and WATER—and also for VENTILATION.

The object of this patent is the economy in its application of raising ores and weights: at the same time that it is attended with security to life and economy of time. M. PUIS (the proprietor) having secured a PATENT, is ready to GRANT LICENSES for its USE, at a certain annual rate, or for a fixed sum.

All inquiries will be satisfactorily answered on application, personally or by letter, addressed to M. Puis, 32, Craven-street, Strand; Mr. English, 25, Fleet-street; or to the office of the *Mining Journal*, 26, Fleet-street, London.

*** Any proprietor, or gentleman interested in mining property, can obtain a description of Mr. Puis' invention, on application as above.

REVIVAL OF PASSENGER TRAFFIC ON TURNPIKE ROADS—RESUSCITATION of INNS, INNKEEPERS, and TURNPIKE TRUSTS.—PROSPECTUSES for raising a LOAN of FIVE THOUSAND POUNDS, in sums of £10 each, payable by instalments, in aid of the above national object, to be attained by means of Sir JAMES C. ANDERSON'S PATENT STEAM-CARRIAGE FOR COMMON ROADS (now rendered thoroughly effective), for which interest, at the rate of 15 per cent. per annum, will be paid half-yearly, and both principal and interest amply secured by mortgage, and without the lenders incurring the justly-dreaded liabilities of joint-stock companies, will be forwarded free (on the receipt of a postage-stamp), on application to Mr. Herbert, solicitor, 8, Heathcote-street, Mecklenburgh-square, London.

*** The line of road selected to commence running the carriages is from Hyde-park Corner to Hounslow, through Kensington, Hammersmith, Brentford, &c.

CALEDONIAN RAILWAY COMPANY—LOANS ON DEBENTURES.—TENDERS OF LOANS ON DEBENTURE BONDS are now RECEIVED in sums of not less than £500, for any number of years not exceeding five. Interest to be at the rate of 5 per cent. per annum, payable half-yearly, in London, Edinburgh, Glasgow, or in any country bank.

Tenders to be addressed to this office, giving full name and address of lender.—Parties may also communicate with Messrs. Foster and Braithwaite, 68, Old Broad-street, London.

By order, D. RANKINE, Treasurer.

Caledonian Railway Office, Edinburgh, Feb. 25, 1848.

SHREWSBURY AND BIRMINGHAM RAILWAY COMPANY.—LOANS ON DEBENTURES.—The directors of the SHREWSBURY AND BIRMINGHAM RAILWAY COMPANY are prepared to RECEIVE TENDERS OF LOANS, in sums of not less than £500, to be secured on the company's debentures.

By order, GEORGE KNOX, Secretary.

Offices of the Company, 3, Moorgate-street, London.

WEST LONDON RAILWAY COMPANY.—The directors of the above company are prepared to RECEIVE TENDERS for the REMOVAL of the MUD which has accumulated in the BASIN of the KENSINGTON CANAL, at KENSINGTON, into some excavated gravel pits nearly adjoining. The quantity of mud to be removed is estimated at from 8000 to 10,000 cubic yards; and the tenders, which must state the price per yard for the removal of the same, must be sent to this office on or before Twelve o'clock on the 1st day of August next.

Full particulars may be obtained of Mr. Armitt, the company's toll collector, on the spot, or at this office. JOHN THOMPSON, Secretary.

Office, 11, Abchurch-lane, July 12, 1848.

RIDER'S RAILWAY BRIDGE.—TO RAILWAY COM- PANIES.—A PROSPECTUS of the above newly-invented IRON TRUSS RAILWAY BRIDGE will be FORWARDED, and CONTRACTS entered into, or LICENSES GRANTED for its ERECTION, on application to Mr. Moulton, Bradford, Wilts.

VENTILATION OF COAL MINES—BIRAM'S PATENT ANEMOMETER.—This INSTRUMENT has now been SUCCESSFULLY EMPLOYED by many eminent engineers, to whom reference can be given.

For particulars, apply either to the inventor, B. Biram, Esq., Wentworth, near Rotherham; or to the maker, John Davis, Derby, manufacturer of miners' dials, clinometers, safety-lamps, and all kinds of instruments appertaining to the engineer, are made and kept in stock.—Repairs promptly attended to. J. DAVIS, Irongate, Derby.

PATENT GALVANISED IRON AND WIRE ROPE WORKS, *MILLWALL, POPLAR.*

ANDREW SMITH begs to inform the Mining, Railway, and Shipping interests, that he has obtained a PATENT for an IMPROVED METHOD of GALVANISING IRON, producing a much superior article at a considerable saving in cost—the improved process for galvanising wire rope, adding only £10 per ton instead of £20, under the ordinary processes. The rope is extensively used in damp situations, for mining and railway purposes, and for ships' standing rigging.

CORNWALL NEW MINING COMPANY.

Capital £100,000, divided into 20,000 shares, of £5 each.

Incorporated in pursuance of the Statute of 7 and 8 Victoria, cap. 110.

Bankers—London and County Bank, 21, Lombard-street.

The directors beg to announce, that they are NOW ALLOTING the SHARES in the above company; and, from the number already disposed of, they request parties desiring to take shares to make early application. Th to whom allotments have been made, are requested to pay their deposits into the bankers of the company, as above.

Office, 17, Essex-street, Strand. GEORGE LOCKWOOD, Secretary.

CAMERON'S COALBROOK STEAM COAL AND SWANSEA AND LOUGHOR RAILWAY COMPANY.

Registered and Incorporated.

Notice is hereby given, that the ANNUAL GENERAL MEETING of the registered proprietors of shares in this corporation will be HELD at the company's offices, 2, Moorgate-street, London, on Friday, the 28th day of July, 1848, at One o'clock in the afternoon precisely, for the purpose of receiving the directors' report, and for the transaction of other business, as expressed in the Deed of Settlement and Act of Parliament incorporating the company.—Shareholders in arrear of calls are disqualified from voting at the meeting.

And Notice is also hereby given, that immediately on the conclusion of the business of the general meeting, an EXTRAORDINARY GENERAL MEETING of the registered proprietors of shares in the said corporation will be HELD at the company's offices, 2, Moorgate-street, London, aforesaid, on Friday, the 28th of July inst., for the purpose of considering the expediency of calling up the remainder of the subscribed capital of the company, at such times, and in such manner and proportions, as may be thought advisable and such meeting may determine; and also of increasing the capital, or joint-stock, of the company to any amount to be specified in and by a resolution of such meeting, by the issue or sale of such number of shares as may be determined on by such meeting, all pursuant to the terms of the Deed of Settlement of the said corporation; and if both, or either of, such measures shall be deemed expedient, then for the purpose of entering into such resolutions as may be necessary for carrying the same into effect.

By order of the board of directors, A. C. HOWDEN, Secretary.

Company's Offices, 2, Moorgate-street, London, July 10, 1848.

The transfer books will be closed from the 14th to the 28th July inst., inclusive.

PATENT FLEXIBLE INDIA-RUBBER PIPES AND TUBING, for Railway Companies, Brewers, Distillers, Fire-Engines, Gas Companies, Gardening and Agricultural purposes, &c.

THE PATENT VULCANISED INDIA-RUBBER HOSE-PIPES

are made to stand *hot liquor* and *acids*, without injury—do not become *hard* or *stiff* in any temperature (but are always perfectly flexible); and as they require NO APPLICATION of oil or dressing, are particularly well adapted for *Fire Engines, Pumps, Gas, Beer-Engines, Gardens*, and all purposes where a *perfectly Flexible Pipe* is required.

Made all sizes, from ¼-inch bore upwards, and of any length to order.

Vulcanised India Rubber Garden Hose, fitted with brass-taps, Copper branch and Rose's complete, ready to be attached to pumps, water-butts, or cisterns.

Sole manufacturer, JAMES LYNE HANCOCK,

Goswell Mews, Goswell-road, London.

N.B.—Vulcanised India-Rubber Washers, of all sizes, for joints of hot-water and steam-pipes, and *Vulcanised Sheet Rubber*, any thickness, for all kinds of joints, and other purposes.

IMPORTANT TO RAILWAY AND STEAM NAVIGATION COMPANIES, MANUFACTURERS, AND ENGINEERS.

W. BROTHERTON AND CO.'S

PATENT LUBRICATING FLUID (or Animal Oil) FOR ALL DESCRIPTIONS OF MACHINERY.

W. B. & CO. have the pleasure to state, that the above article is extensively used in her Majesty's Steam Navy, and by several of the principal Steam Navigation and Railway Companies, and is pronounced by them, and by the first practical engineers of the day, to be far better adapted for the purposes of lubrication than any other article hitherto used for such purposes. The Patent Lubricating Fluid is equally applicable for the most intricate and finest pieces of machinery, as for the heaviest bearings of the steam-engine. It is cheaper, much more economical, and cleaner than oils at present in use; is free from smell, and calculated to effect a vast saving in the expenditure of working steam powers.

Further particulars can be had, and testimonials seen, by application to the manufacturers, W. BROTHERTON & CO., Hungerford Wharf, Strand, London.

N.B.—The above article will burn in lamps, and give a light equal to the best sperm oil.

MILL FOREMAN WANTED.—The VALENTIA SLAB COMPANY require an active, intelligent, FOREMAN, at their Slate Sawing Mills, in the island of VALENTIA, IRELAND. He must possess a general knowledge of steam-power machinery, and have been accustomed to the management of men working with machinery. Salary, £150, and house room.—Applications, stating qualifications, to be addressed to Mr. Wm. Walton, clerk of the company, 4, Trafalgar-square, London.

TO ENGINEERS, &c.—WANTED, a SITUATION, as MECHANICAL DRAFTSMAN, or FOREMAN, to SUPERINTEND the REPAIRS of MARINE or LOCOMOTIVE ENGINES, &c. The advertiser, who is 40 years of age, has had considerable experience, and been employed, for a long time, by some of the first engineers of the country; unexceptionable references given.—Address "A. B.," at the office of the *Mining Journal*, 26, Fleet-street, London.

BLACK-JACK WANTED.—Any person having BLACK- JACK to give away, may hear of a CUSTOMER, by applying to Box R, 57, Post-office, Liverpool.—N.B. A small commission allowed to parties obtaining jack on the above terms—say, delivered at Chester.

SPRINGBANK IRON-WORKS.—The FIRM of AITKEN ALLAN, & CO., IRON FOUNDERS, KELVIN FOUNDRY, having some time since been DISSOLVED, Mr. ALLAN, in soliciting a share of the patronage formerly bestowed on him, begs to inform his former customers, and the trade in general, that the above WORKS are now in FULL OPERATION—capable of producing castings of every description, required for the Foreign, English, Irish, and Scotch markets—and that the BUSINESS will be CARRIED ON under the FIRM of

Springbank Iron-Works, Glasgow, July 3, 1848. THOMAS ALLAN & Co.

TO CAPITALISTS—SCIENTIFIC OR OTHERWISE.— WANTED, from FIVE HUNDRED to ONE THOUSAND POUNDS for securing PATENTS in FOREIGN PARTS, for several IMPORTANT INVENTIONS, about to appear before the public (for which the English patent has been obtained). Only part of the above amount is wanted immediately. Any party having the above sum at command will find this an excellent opportunity for the investment of capital, as ample security will be given, and the most liberal terms conceded to.—Apply to Mr. A. Campbell, 184, Fleet-street.

BOILER EXPLOSIONS.—JOSEPH SPENCER, ENGINEER and IRONFOUNDER, BILSTON, STAFFORDSHIRE, desires to inform all persons using STEAM-ENGINES, that he has constantly on hand a LARGE SUPPLY of his SAFETY WHISTLES, which can be fixed to boilers on the shortest notice.

ENGINES.—WANTED to PURCHASE, the following STEAM-ENGINES—viz.: ONE PUMPING-ENGINE, 60 to 80 inches steam cylinder, condensing with or without pumps, 14 inches, and pipes 15 inches, diameter: TWO WINDING-ENGINES, high-pressure, 26 inches steam cylinder each: ONE PUMPING-ENGINE, high-pressure, 24 inches to 26 inches steam cylinder, with or without 10 inches pumps and 12 inches pipes diameter: also an ENGINE, 18 inches cylinder, high-pressure.—Persons having any, or the whole, of the engines, as described above, are requested to furnish the particulars thereof to Mr. H. W. White, stationer, Merthyr Tidvil, stating the lowest price.

TO BE SOLD, BY PRIVATE CONTRACT, a THREE- CYLINDER CONDENSING-ENGINE, 16-horse power; also, an 8-horse HIGH-PRESSURE THREE CYLINDER ENGINE, working upon three-throw triangular cranks—thereby affording a steady and uniform motion, which renders them particularly applicable and well adapted for grist-mills, clothing-mills, or any machinery requiring a steady and even movement.—Address to Mr. Edmund Rudge, engineer, Church-street, Tewkesbury, Gloucestershire.

TO COPPER MINERS AND OTHERS.—WANTED, by a Birmingham merchant, well connected with the manufacturers, a COMMISSION to SELL COPPER and OTHER METALS.—Apply, by letter only, 766, *Midland Counties Herald* Office, Birmingham.

TO MINING COMPANIES interested in, and PARTIES desirous of becoming PURCHASERS of, MINERAL LANDS, in SOUTH AUSTRALIA.—The ADVERTISER, a civil engineer, who has lately returned from the colony, and has had considerable experience in mining operations there, and is well acquainted with that vast mineral district, now OFFERS his SERVICES to any company who may be about sending out a RESIDENT SUPERINTENDENT, or to any party who may be about purchasing mineral land there. Satisfactory references will be given.—Address "T. M. E.," at the office of the *Mining Journal*, 26, Fleet-street, London.

MINING.—TO MINING PROPRIETORS, COMPANIES, MINING SHAREHOLDERS, and MINE AGENTS of GOLD, SILVER, LEAD, TIN, COPPER, IRON, COAL, &c.—All letters addressed to

EVAN HOPKINS, C.E., F.G.S.,

Soliciting his OPINION and ADVICE on the PROSPECTS of any given MINE or any UNTRIED GROUND (the essential particulars being furnished), or to INSPECT and SURVEY, or to make PLANS, SECTIONS, and REPORTS on any MINING PROPERTY, are to be sent (for the present), to the care of the Editor of the *Mining Journal*, 26, Fleet-street, London, who will forward the same, and to which due and confidential attention will be paid without delay.

MINING SHARE OFFICE.—W. BAWDEN, of No. 2, BANK CHAMBERS, LONDON, MINE AGENT, of 21 years' standing, begs to call the attention of PURCHASERS of MINING PROPERTY to the following SHARES at this particular time—viz.: United Mexican, Bolanos, Del Reys, and Tamars, as there is, from present appearances, every rational prospect for purchasers realising from 50 to 200 per cent., in a few months, on their outlay.—W. B. will be most happy to give every information respecting these and other mining shares.—*Attendance daily from Ten to Four.*

MINING OFFICES—Established Five Years.— THOMAS P. THOMAS begs to inform his friends and the public, that he has REMOVED from No. 18, Threadneedle-street, to No. 3, GEORGE-YARD, LOMBARD-STREET, LONDON (late Messrs. Phillips and Tiplady's).

N.B.—Dealer in English and Foreign Funds, Mining, Railway, Gas, and other shares.

MR. R. TREDINNICK, THREE KING'S COURT, *LOMBARD-STREET, LONDON,*

Continues to DEAL in every description of MINING, RAILWAY, BANKING, INSURANCE, CANAL, and OTHER SHARES.—Statistical information afforded gratuitously, upon personal application.—MONEY ADVANCED upon the above securities.

MR. JAMES STRIDE'S MINING, SHARE, AND GENERAL AGENCY OFFICES, 27, *SPRING-GARDENS, LONDON.*

WILLIAM W. TAYLOR & CO., MINERAL SURVEYORS MINING SHAREBROKERS, &c.,

No. 2, *ROYAL EXCHANGE-BUILDINGS, LONDON.*

JAMES LANE, MINING SHARE DEALER, 75, *OLD BROAD-STREET, LONDON.*

REUBEN FARLEY, MINE AGENT, AND LAND AND MINE SURVEYOR, *WEST BROMWICH, NEAR BIRMINGHAM,* AGENT to the NORTH OF ENGLAND FIRE AND LIFE INSURANCE COMPANY.

WILSON & FRASER, 2, WELLINGTON-BUILDINGS, LIVERPOOL, and 13, EXCHANGE-PLACE, GLASGOW, have always ON SALE PIG-IRON, BAR-IRON, RAILWAY CHAIRS, and RAILWAY BARS.

MONEY.—MESSRS. KILLICK & CO. (late Winstanley, Killick, & Co.), SHAREBROKERS, inform their friends and the public, they make IMMEDIATE ADVANCES, to any amount, on the deposit of English and Foreign Railway Shares, Scrip, and Debentures, upon exceedingly advantageous terms: they also BUY and SELL every description of STOCK and MINING SHARES, at much less commission than usually charged.—6, Bank Chambers, opposite Bank of England.

ALLIANCE GAS COMPANY.—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the proprietors of the ALLIANCE GAS COMPANY will be HELD at the house, or office, of the company, situate No. 39, Finsbury-circus, in the city of London, on Friday, the 28th day of July next, at Two of the clock in the afternoon precisely, for the purpose of considering the financial affairs of the company.—Dated this 10th day of July, 1848.

By order of the board of directors, J. B. GREAVES, Secretary.

CONSOLIDATED COPPER MINES OF COBRE ASSO- CIATION.—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of proprietors of this association will be HELD at the office of the company, No. 26, Austinfriars, on Tuesday, the 25th July inst., at One o'clock precisely.

By order of the court of directors,

26, Austinfriars, July 6, 1848. WM. LECKIE, Secretary.

HOLYFORD COPPER MINING ASSOCIATION.—The SECOND HALF-YEARLY GENERAL MEETING of the shareholders will be HELD at the office, 34, Great Winchester-street, on Wednesday, the 26th July inst., at Twelve o'clock, for transacting the ordinary business of the association.

London, July 12, 1848. J. W. BUCKLAND, Jun., Secretary.

MEXICAN AND SOUTH AMERICAN COMPANY.— The TIME for RECEIVING TENDERS for the SHARES in this company, on which the last call has not been paid, is POSTPONED from Thursday, the 13th, to Thursday, the 27th inst.—July 12, 1848.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Cascade Mining Company—offices, at One.
Union Bank of Australia—offices, at One.
Italian and Austrian Railway—London Tavern, at Two.
TUESDAY.....East Indian Railway—London Tavern, at Twelve for One.
London Cemetery Company—Radley's Hotel, Blackfriars, at Eleven.
Hungerford Market Company—offices, at One.
Commercial Bank of London—offices, at One.
WEDNESDAY..Mutual Life Assurance Company—King's Head Tavern, Poultry, Twelve.
London and Westminster Bank—offices, at One.
City of London Gas-Light Company—offices, at Two.
Patent Metal-Cored Railway Sleeper Company—offices, at Twelve.
Ceylon Railway Company—offices, at One.
Derby, Uttoxeter, and Stafford Railway—George & Vulture, ½-past Two.
THURSDAY.....Pacific Steam Navigation Company—offices, Liverpool, Twelve for One.
Swansea Dock Company—Radley's Hotel, Blackfriars, at Twelve.
Caledonian Railway—Gibb's Hotel, Edinburgh, at Twelve.
SATURDAY.....Namur and Liege Railway—London Tavern, at One.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

ST. KATHARINE DOCK COMPANY.

The half-yearly meeting of this company was held on Tuesday, the 11th inst., at the Dock-house, Tower-hill, for the purpose of declaring a dividend for the half-year ended the 30th June last, and for the election of 21 directors for the year ensuing.

Mr. T. Tooke in the chair, who addressed the proprietors, and adverted to the purposes of the meeting as described in the notice convening the same. According to the provisions of the Dock Act, the accounts of receipts and expenditure were laid before the proprietors only at the annual meeting held in the month of January in each year; and, inasmuch as the amount of dividend for the preceding half-year at the time agreed upon was understood to govern the dividend to be declared at the half-yearly meeting in July following, the directors had merely to propose that a dividend be declared of the same amount as in January last—viz.: of 2 per cent. for the half-year ended the 30th June, on the capital stock of the company, and upon the instalments paid on the additional stock subscribed for; and, further, it was proposed that the amount of income-tax payable on such dividends be defrayed by the company, the dividend to be payable on Saturday, the 22d inst., and following days, Sundays and holidays excepted, which proposal was agreed to after some discussion relative to the payment of the income-tax by the company—it being understood that the expediency of discontinuing the same would be fully considered at the ensuing annual meeting of the proprietors in January next. Returns of shipping and tonnage that entered the port of London with cargoes from foreign ports, and also of the ships with cargoes that entered the docks from like places, and of goods landed during the preceding six months—also, the quantity of merchandise in warehouse on the 30th June, with a comparative statement for the corresponding periods in the years 1845, 1846, and 1847—were submitted for the information of the proprietors. From these it appeared that a considerable falling off had taken place during the last six months—of the probability of which he (the chairman) had expressed an apprehension when he addressed the proprietors in January last. But, in the corresponding six months of 1847 there had been, from the peculiar circumstances of the time, which were well-known, a very great increase in the importations of corn and flour provisions, rice, sugar, and other bulky articles, as compared with the first six months of 1846. These peculiar circumstances being no longer in operation, and having been succeeded by an extreme depression of trade, the importations, as far as the St. Katharine Dock was concerned, had been reduced to what they were in a corresponding period of 1846, the difference being the most trifling possible—

Stock of goods in warehouse June 30, 1846, was.....Tons.	63,435
And on June 30, 1848	62,887
Less tons...	548
Of goods landed during six months, ended June 30, 1846, the quantity was..Tons.	52,716
June 30, 1848.....	52,577
Less tons.....	139

After some further observations from the Chairman, relating to the comparative importations, the proprietors proceeded to the ballot for 21 directors, who were elected for the year ensuing, of whom the following is a list:—Messrs. George Pearkes Barclay, Charles Dashwood Bruce, Henry Buckle, John White Cater, Alexander Colvin, George Forbes, John Gurney Fry, William Gladstone, John Hampden Gledstanes, George Carr Glyn, M.P., Charles Pascoe Grenfell, M.P., John Benjamin Heath, Joseph Henry, John Gellibrand Hubbard, Robert M'Calmont, Manuel Perez, Anthony Ridley, Wm. Sampson, William Thompson, Alderman and M.P., Thomas Tooke, and Thos. Weeding; and a vote of thanks having been passed unanimously to the chairman and the rest of the directors for their attention to the interests of the company, the meeting broke up.

UNION BANK OF LONDON.

At the ninth annual meeting of proprietors, held on the 12th inst., a dividend was declared for the last six months, at the rate of 6 per cent. per annum, clear of income-tax. The profits of the year were stated at 39,283*l.*, which, after payment of the two dividends of 3*l.* per cent. each, the usual appropriation of 500*l.* in reduction of preliminary expenses, and the addition of 9100*l.* to the reserve fund, now amounting to 50,000*l.*, would still leave an unappropriated surplus of 4309*l.*, to be carried to a new account of profit and loss. It was mentioned also that, notwithstanding the commercial disasters through which the company had lately passed, the establishment has been free from any material loss; while, at the same time, the more than usual caution exercised has not prevented an extension of its connexions. The amount paid during the year, in the shape of interest to depositors, was 30,242*l.*; and, since the commencement of the bank, a total of nearly 170,000*l.* has thus been returned to its customers. With regard to a statement, that the losses experienced in the commercial crisis was of no material amount, it was elicited that they did not exceed 3000*l.* It was also stated, that the funded securities held by the bank reach 400,000*l.*, and that there is no intention to depart from the system of allowing interest to customers on their current accounts. A suggestion was made that, for the future, the qualification of directors should be 100 shares, and the possession of property to the extent of 10,000*l.*, and that directors elected in the course of the year should be subject to the approval of the general meetings; but the proprietors apparently being well satisfied with the management hitherto adopted, it was finally resolved to leave these points to the consideration of the board.

LONDON JOINT-STOCK BANK.

The half-yearly meeting of shareholders was held at the establishment, in Princes-street, on Thursday, the 13th inst., and was numerously attended.

Sir Richard Jenkins in the chair.

The Secretary read the report (inserted in another column), and balance-sheet, showing that the net profit of the bank for the year ending June 30, had been 33,490*l.*, which, after deducting 18,000*l.* for the present and previous dividend, left a surplus of 15,490*l.* to be carried over to the next year. The statement of accounts showed liabilities of 3,029,763*l.* against assets amounting to 3,059,013*l.* The profit and loss accounts showed a balance in favour of the company of 71,882*l.* They were adopted unanimously.—No Proprietor having any questions to ask, Mr. Gibbs moved a vote of thanks to the chairman and directors, which was passed unanimously.—A vote of thanks was also passed to Mr. Pollard, the manager, when the meeting adjourned.

Institute of Actuaries.—On Saturday, a meeting of gentlemen holding the office of actuaries, secretaries, and managers to life offices, was held in the board room of the Guardian Assurance Company, for the purpose of forming an institute for the mutual advantage of parties immediately engaged in the duties of conducting the affairs of life assurance companies. Some time ago a meeting was held, at which a committee was appointed to consider the practicability of such a desirable union. That committee prepared a report, which was submitted to a general meeting on the 10th of June last, and underwent full discussion, the result of which was the appointment of another committee of 15 gentlemen, to prepare a plan for carrying out the same, and the meeting on Saturday was convened to receive the report of these gentlemen.—Mr. P. Hardy, of the Mutual Assurance Company, having been called to the chair, the report of the committee was read, the various clauses to constitute the institute separately put to the meeting, and, with the exception of one or two slight amendments, unanimously carried. The principal objects of the institution are—the development and improvement of the mathematical theories upon which the practice of life assurance is based, and the collection and arrangement of data connected with the subject of duration of life, health, and finance; the improvement and diffusion of knowledge, and the establishment of correct principles relating to subjects involving monetary considerations, and the doctrine of probability, and the elevation of the attainments and status of the members of the profession.

Life Policies of Assurance.—A bill has been prepared and brought into the House of Commons by Mr. M'William Fagan, and Mr. Forster, for the purpose of making life policies assignable at law. The bill provides that, from and after the passing of the Act, life policies may be assignable at law, and that the assignee of a policy shall be entitled to recover from insurance companies. Memorandums of assignment are to be endorsed on policy of assurance, and the age of the person whose life is to be insured is to be deemed that which is stated in the policy. Policies of assurance are to be receivable as evidence.

Value of Land in Wales.—Last week the Abercothy and Allytygog estates were sold by auction. Sales to the amount of 60,000*l.* were effected, the land realising some 30, some 40, and some even 50 years' purchase on the present rentals.

Mining Correspondence.

ENGLISH MINES.

ASHBURTON UNITED MINES.—Capt. J. Kernick reports—The water being all drawn out from Hobson's shaft, I have carefully examined that part of the mine; this shaft is sunk 55 fms. below the adit, and this level has been driven on the south lode to Parry's shaft. In going west on the south lode, in the 55 fm. level, the tin ground inclines east, with white killas; and, in the run of this white congenial strata, the former workings extend from the surface at Parry's to the 65 fm. level, and are within 20 fms. distance of Hobson's shaft in the 55 fm. level. Hobson's shaft is in a good position for the tin ground, and in sinking it 20 fms. deeper the junction of the north and south lodes will be intersected, and from this cause the lodes will probably be more productive than ever. The last workings at Hobson's (55) are on a north lode, which is from 3 to 4 ft. wide, all saving tinstuff. The cross-cut in the 14 fm. level, from Hobson's, on the copper branch, is driving at 35*s.* per fm., and has entered the light killas; there remains about 10 fms. more to cut the junction of this copper branch with Brother's lode, which has been seen about 30 fms. further east in the adit level from the union shaft, where it is 2 ft. wide, and very promising for copper, and in a fine channel of white killas. The union adit end, east of Teague's shaft, has been driven for the last 6 fms. In disordered ground, caused by some cross branches; the lode in the present end appears to be getting into more settled ground, and contains some tin dispersed, but not regular, through the lode; it would be very desirable to extend this end a few fathoms, to see the lode in settled ground, as there is a back of 40 fms. in the hill. The adit cross-cut, south of the union, is for the present suspended, but there are several large lodes to the south of the present end to be seen in the very extensive workings of the old men, and which appear to have yielded them vast quantities of tin. I set a pitch in the back of the 35 fm. level, east of Murray's shaft, to 4 men, at 11*s.* in 1*l.*; and I beg leave to call your attention to a large extent of tribute ground in that place, and to recommend communicating that level to Murray's shaft. I calculate that the pitches set for July will produce 4 tons of tin and 6 tons of copper, worth at present prices about 210*l.* To sink Hobson's shaft 20 fms. deeper will cost 240*l.*; there are 15 fms. of spare pumps on the mine complete, for a 7-in. working.

[As explanatory of Capt. Kernick's report, we append the following remarks of Prof. Austed, extracted from his report, to which reference was made in last week's Journal:—Prof. Austed was unable to see this part of the mine, being then undrained, but describes the strata as follows:—"In similar schistose and slatey rocks, on the opposite (west) side of the Dartmoor granite, some of the richest and most valuable mines known in the south-west of England are now being worked; while from the surface and open workings in the vicinity very large quantities of tin have been obtained." On this part of the mine the professor observes—"I have no hesitation in recommending that this branch be pursued steadily, to cut, if possible, the lode No. 5, described as the Brother's lode. It should be pursued in all the levels, and I think it will be found to make a bunch of ore at the junction with this lode." The professor remarks on this western end, near Murray's shaft, that—"The appearance of these branches was, at the time of my visit, exceedingly favourable. There can be no doubt they ought to be followed carefully to the south-east in the 25 and 35 fm. levels; these branches may show some indications of coming into the main lode, and this would most certainly lead to the discovery of a very rich, and probably extensive, course of ore."]

BARRISTOWN.—Capt. Thomas Angove (July 7) reports—The lode in adit end east is producing about the same quantity of lead as last reported—from 5 to 8 cwts. per fm. The winze in the bottom of adit level will be holed to the cross-cut, south of flat-rod shaft, before this reaches you; we have a lode 2 ft. 6 in. wide in the winze, and the same in size, thinly mixed with ore; the holing of this winze will enable us to work the ore ground in the bottom of the adit level with more facility, which, indeed, at the present time, looks well. We hope to ship a small cargo of lead the latter end of this month.

BEDFORD UNITED.—Capt. James Phillips (July 12) reports—At Wheal Marquis, the engine-shaft is 2 fms. under the 90 fm. level; in the 90 fathom level, east of the sump winze, we are driving by the side of the lode; in this level west there is no alteration; the lode in an arch of ground, east of the sump winze, in this level, now stoping away, is worth from 60*l.* to 70*l.* per fm.; Hodges's rise, in this level, is suspended, and the men put to sink in the 80 fm. level to hole; the lode in the 80 fm. level is 20 in. wide, saving work. In Evans's winze, in the 70 fm. level, the lode is 2½ ft. wide, and worth 10*l.* per fm.

CALLINGTON.—Capt. J. T. Phillips (July 10) reports—Kelly Bray engine-shaft is now 6 fms. below the 35 fm. level; the ground is favourable for sinking. In the winze, sinking below the 25, the lode is split up in branches, and poor. In the 50 fm. level east, at the north mine, we have no alteration to speak of. In the 70 fm. level, the lode is 3 ft. wide, alive in copper; in the winze, below this level, the lode is 3 ft. wide—poor; in the western part of the stopes, the lode is mostly composed of killas, intermixed with branches of fluor spar and copper ores; in the eastern part of the same, the lode is 6 ft. wide—work of a coarse quality. In the 90 fm. level, we have gone through a branch of the great cross-course. The north engine-shaft is rather more than 5 fms. below the 100 fm. level; the ground is hard for sinking. No alteration has taken place in either of the levels on the lead lodes since last report, with the exception of the 112 fm. level north, here we have cut the elvan course; no lode has been taken down.

CWM ERFIN.—Captain S. Nicholls (July 8) reports—The engine-shaft is down 3 fms. 2 ft. 10 in. The lode is not being taken down, on account of the lode underlaying to the south faster than the shaft at present; the shaft must be sunk in its regular course, on account of the pitwork. I think the lode will fall in with us again in a short time. The whim-shaft is down, in order to drive; the stope, west of whim-shaft, is poor. I have removed the men, to stope the 20 fm. level east of whim-shaft; this stope is worth 6 cwts. of ore to the fm.; the stope, east of whim-shaft, is worth 8 cwts. of ore to the fm. The stope, west of the eastern shaft, is worth 6 cwts. of ore to the fm.

DEVON AND COURTENAY.—Capt. W. Rendle (July 11) reports—In the end, driving west on the gossan lode, in the 40 fm. level, the lode is just the same as last reported; the lode in the stopes, in the bottom of this level, is 15 in. wide—good saving work. The ground in the end, driving north on the slide, to intersect the gossan lode, continues favourable for driving. In the end, driving east on the cross-course, in the 50 fm. level, the ground is at present rather hard; this has occasioned some delay in cutting the lode in the eastern side of the cross-course.

EAST CROWNDALE.—Capt. S. Paull (July 8) reports—There has not as yet any change taken place for the better in the 58 fm. level west; the lode still continues about 5 ft. wide, composed of capel, spar, mundic, white iron, and stones of ore; the same level east is looking kindly to make a bunch of ore shortly, there being good stones of lead in the flookan which was found to exist where they had the best bunches of ore in the old mine; the lode is upwards of 4 ft. wide, composed of capel, mundic, spar, prian, white iron, and spots of ore; in the cross-cut north, in the same level, we have passed through a branch in the past week, 10 in. wide, containing mundic and spots of ore, this branch we passed through in the shaft, and is a dropper into the main lode. At Rix Hill Tin Mine, the men in Diamond's engine-shaft are again hindered by water, owing to the almost continual rains. These men are engaged raising, to hole to the old men's shaft, coming down on the south lode at Rix Hill adit level: this, I hope, will be completed by Wednesday next. The adit level, driving west on the course of the south lode at Rix Hill, continues to look well; the lode is upwards of 6 ft. wide, composed of peach, prian, spar, capel, mundic, and tin; this end is, at present, worth 30*l.* per fm.

GREAT HEWAS CONSOLS.—Captain John Carthen (July 5) reports—Having this week carefully examined the workings of this mine, as to what has been done since the commencement by the present adventurers, I beg to say, that the 36 fm. level is drained, and the level extended by the former adventurers 400 fms., east and west; but we have only cleared 150 fms. in length, and I am exceedingly glad to report, we have a great deal of good tin ground in the backs over this level—more than was ever anticipated; the fact is, we can see hundreds of fathoms of good tin ground, which will work at a moderate tribute. We have 36 miners employed breaking tin, and with those we are raising upwards of 7 tons of tin per month; and if there were only three more horse-whims purchased, so that they might be erected on other shafts, we should be in a position to get the 36 fm. level cleared to the full extent, and then there would be no doubt whatever of increasing the numbers of miners, and of raising, from this level alone, from 14 to 15 tons of tin per month, which would more than pay the cost of the mine, even at the present price of tin. I have, in the course of the week, seen several of the old miners, who formerly worked at the mines, and their reports to me have been of the most sanguine description, inasmuch as they have stated, that we should find good courses of tin as we go deeper—even in the 48, in the 66, as well as the 76 and 86 fm. levels; therefore, from what I have seen in the levels above, I am induced to say, in order to bring this mine into a large and profitable way of working, we must begin immediately, and get the water drained to the 86 fm. level; and the total expense, including pitwork, labour, and everything connected therewith, will not be more than 500*l.* I also find from the lode, which we are working, as well as from every information, that it will average 2½ ft. wide, and the ground can be stoped for 40*s.* per fm.: and the steam-engine is of sufficient power to draw all the water in the mine, and, at the same time, lift all the water required to go over the wheels, to stamp and return from 16,000 to 20,000 sacks of tinstuff monthly; and the total expense of draining the mine, and returning the tinstuff, will be less than any other mine in this county; in doing this, we shall be able to give good and lasting profits to the shareholders.

GREAT MICHELL CONSOLS.—Capt. T. Richards (July 12) reports—The lode in the 45 fm. level, east of the sump-winze, is composed of mundic, capel, spar, and ore, and is, in its general character, exceedingly promising: in this level west the lode is without material alteration, containing mundic, spar, fluor, and capel, with good stones of ore in places. In the 35 fm. level, west of the sump-winze, the lode consists of mundic, capel, and spar, with a small proportion of ore—the lode is favourable for driving.

HOLMBUSH.—Capt. W. Lean (July 11) reports—The shaftmen are getting on in a very satisfactory manner with the plat in the 132 fm. level; the lode in this level, west of the diagonal shaft, is divided into several small branches, composed of spar, mundic, and spots of copper ore. The lode in the 120 fm. level south is 4 ft. wide, producing about 6 cwts. of lead per fm.; the lode in the stopes, in the back of this level, is, at present, unproductive; but the ground is very favourable, and we hope soon to see a change for the better. The lode in the 110 fm. level south is 4½ ft. wide, composed of quartz and lead—worth 5*l.* per fm. The lode in the 100 fm. level south is 2½ ft. wide, composed of spar, prian, and lead—saving work; the flap-jack lode, in the same level, is 2 ft. wide, composed of spar, mundic, blende, and spots of copper ore—ground still favourable for exploring. The lode in the 90 fm. level south is 20 inches wide, composed of spar, flookan, and stones of lead—saving work. There is nothing new in any of the tribute pitches since my last report.

HERODSFOOT.—Capt. John Medlen (July 10) reports—Our new engine is got to work, and works very well; and our shaft, &c., which required a little strengthening for the large new kibbles, is now nearly completed, and the stuff, which has greatly accumulated, we expect will be cleared by the end of this week. The increased facility for taking off the stuff has enabled us to employ an additional number of hands, principally on tribute. Our engine-shaft is down 10 fms. below the 94 fm. level—we intend to sink 2 fms. more before we drive; the 94 fm. level south has been driven 4 fms. on the western part of the lode, and yielded a little lead; but we are now cross-cutting east to intersect the eastern part; in this level north the lode is 3 ft. wide, yielding half a ton per fm.; the stopes, in the back of this level (by six men), yield about three-quarters of a ton per fm. In the 82 fm. level south the lode is 2 ft. wide, yielding three-quarters of a ton per fm.; and in the north end the lode is 2 ft. wide, yielding 1¼ ton per fm.; there is a winze sunk 6 fms. below this level, about 15 fms. south of the engine-shaft; and, as far as we can see, the lode is 2½ ft. wide, yielding 1 ton per fm. There are six tribute pitches in the back of this level, north and south, working at an average tribute of 2*l.* 13*s.* 4*d.* per ton. In the 72 fm. level south the lode is 2¼ ft. wide, yielding 1 ton per fm.; in the north end the lode is 1½ ft. wide, yielding half a ton per fm.; there are two pitches, in the back of this level, working at an average tribute of 3*l.* 10*s.* per ton; we are cutting a plat in this level, under Winsor's shaft, to prepare to rise against it: this, when completed, will ventilate and increase our facilities for drawing stuff in the south part of the mine. In the 62 north the lode is 12 in. wide, yielding half a ton per fm.; there are three pitches in the back of this level, working at an average tribute of 4*l.* per ton. We hope to raise 100 tons of lead this month.

KIRKCUDBRIGHTSHIRE.—The agents (July 8) report—In the 50 fm. level, driving west of Stewart's shaft, on the main lode, the lode is about 3 ft. wide—ground favourable, and a small branch of lead on the south side; the north lode, driving west, in this level, is about 2 ft. wide, yielding about ½ ton to the fm.; this end is improving in appearance. In the 40 fm. level, driving west of Keith's shaft, the lode is about 2½ ft. wide, worth 1 ton to the fm. In the 30 fm. level, west of Keith's, the lode is nearly 4 ft. wide—good stones of ore on the north part of it, with spar and sulphur—a strong lode; in the 30 fm. level, east of Stewart's, the lode is 2 ft. wide, with a strong branch of lead and blende on the north side.

SOUTH DOLCOATH.—The mine agent (July 10) reports—We have got excellent stones of grey ore in the shaft on the north part of the lode. We have also good stones of ore from the dropper, south of the lode; we expect, when this branch falls into the lode, that an improvement will take place. During the week, it is my intention to go under ground, when I shall be able more fully to report respecting the above.

SOUTH WHEAL TRELAWNY.—Captain W. Jenkins (July 10) reports—We are still driving the cross-cut west of Snell's engine-shaft—ground favourable. We are also in course of fixing the plunger-lift from the 30 to the adit.

STRAY PARK.—Captains Richard Eustice and Elisha Ralph (July 10) report—In the 70 end, driving west, the lode is 1 ft. wide, yielding 1 ton of ore per fm. In the winze sinking below the 80 fm. level, the lode is 2 ft. wide, yielding 5 tons of ore per fm. In the 90 end, driving west, the lode is 1½ ft. wide, yielding 2 tons of ore per fm.; this end is in Wheal Francis sett about 2 fms. In the 100 end, driving west, the lode is 2½ ft. wide, yielding 4 tons of ore per fm. In the 110 end, driving west, the lode is small and unproductive. In the 120 end, driving west, the lode is 2 ft. wide, yielding 2 tons of ore per fm. In the 150 end, driving west, the lode is 2 ft. wide, yielding 3 tons of ore per fm. In the 180 end, driving east, the lode is small and unproductive; in the same end, driving west, the lode is 1 foot wide, yielding stones of ore. The sampling on the 19th inst. will exceed 500 tons, and the tribute ground is looking very well—fully answering our expectations.

TRELEIGH CONSOLS.—Capt. William Symons (July 8) reports—The 120 fm. level, east of Christoe's, is driving on the slide to cut Christoe's lode. The 80 cross-cut south, east of flat-rod winze, is driving to cut the south lode. Garden's shaft, below the 100, is sinking in the country; in the 100, west of Garden's, the lode is 2½ ft. wide—orey, but not to value; the 100 cross-cut south, west of ditto, is driving on the cross-course to cut the south lode. In the 90, west of ditto, we have cut the lode in cross-cutting—it is 15 in. wide, with good stones of ore. In the 80, west of ditto, the lode is 18 in. wide, with stones of ore only. In the 70, west of ditto, the lode is 2 ft. wide—rather kindly, with stones of ore. In the 60, west of ditto, the lode is 20 in. wide, more promising, with good stones of ore. In the 50, west of ditto, the lode is 20 in. wide, but little ore. Wheal Parent engine-shaft, below the adit, is sinking in the country; in the adit east, on Wheal Parent lode, the lode is 2½ ft. wide, with good stones of ore and mundic, not to value; the adit cross-cut, north of engine-shaft, is driving to cut Wheal Orphan lode.

WEST WHEAL JEWEL.—Capt. Richard Johns (July 10) reports—The 70 fm. level, west of Williams's cross-course, on Wheal Jewel lode, has not been taken down in the past week. In the 57 fm. level, west of Williams's cross-course, on the same lode, the lode is worth 12*l.* per fm. In the 57 fm. level, east of Williams's cross-course, on the same lode, the lode is 15 in. wide, worth 5*l.* per fm. In the rise, in the back of the 57 fm. level, on Williams's cross-course, the eastern side of the lode is producing stones of ore. In the adit end, west of Hodges's cross-course, in the same lode, the lode has not been taken down in the past week. In the adit end, west of Quarry shaft, on Tolcarne tin lode, the lode is 20 in. wide, producing some good stones of tin. There is no lode taken down, either in the 12 or 30 fm. level, on Tolcarne tin lode, in the past week.

WEST WHEAL MARIA.—Captain T. Rodda (July 11) reports—At the western engine-shaft we have cut through the lode in the cross-cut south, in the 74 fm. level, and we find it to be about 2 ft. wide, composed principally of capel, spar, mundic, and spots of ore in places; in which I have set to the men to drive west, at 6*l.* 10*s.* per fm.—ground favourable for driving. In the 34 fm. level, west of Vivian's shaft, we have been inclining south, as I suppose the south to be the main part of the lode, and we have discovered a branch about 6 in. wide; but we have not driven far enough to prove whether there is more lode still south, as I am of opinion there is; but, if not, I would recommend removing the men from this level to the 47 fm. level, to drive east on the course of the lode.

WHIDDEN MINES.—Capt. John Kernick reports—In costeaning at the surface we have discovered four lodes, two of which are large and promising for tin. We have set the deep adit cross-cut to drive south from the caunter shaft to cut those south lodes, which will all be intersected in 26 fms. driving; these four lodes underlie north, and form a junction with the great tin lode; the ground in the cross-cut is being driven by four men, at 5*l.* per fm. I am continuing the shallow adit east towards the old workings, by two men, at 35*s.* per fm.; the lode is 2 ft. wide, but generally poor. To prove the great tin lode below the adit, it would be advisable to sink the caunter shaft 10 fathoms with a horse engine attached to the whim; there is a lift of pumps on the mine, for a 6-in working, complete; to sink the caunter shaft 10 fms., and to cut the great tin lode in the 10 fm. level, will cost 115*l.* There are some arches of ground in the back of the deep adit, which will afford some assistance, when we have water to stamp the stuff; but we cannot calculate on any considerable monthly produce, before we have opened fresh ground, by driving the shallow and deep adit, and sinking the caunter shaft.

[In reference to Capt. Kernick's report, it may be interesting to the shareholders to give the following extracts from that of Prof. Ansted:—"An important group of mineral veins has been worked, and is still being worked, on the opposite (west) side of Dartmoor, in rocks, having similar geological characteristics, and the remains of very extensive open workings, and old mines, in the immediate vicinity, are sufficient evidence that mineral riches are not wanting beneath the surface." On this point, the professor states—"There can be no doubt that, if the present appearances hold, there is an excellent prospect for the mine in the intersection of these lodes."—The professor describes this end as continuing to be mixed with a large proportion of mispickel, and that tin ore of this character not unfrequently contains gold.]

WHEAL TREGORDEN.—The following report has been presented to the shareholders, dated June 28, and signed by J. Bryant, Wheal Trelawny; R. Dunstan, West Caradon; S. Richards, Wheal Trehane; A. Barratt, Tavistock; and J. Richards, Devon Great Maria:—The mine is situated about one mile north-east of the shipping port of Wadebridge, in the lands of Mr. Wilcocks and Mr. Polard, held under a license of 1-13th dues, till the returns of the mine reimburse the outlay, after which 1-14th dues is to be paid. The local advantages are very considerable, both for the import of materials and export of ores. The extent of this sett, on the course of the lode, is upwards of 500 fms.; the bearing is about 20° east of north and west of south. The principal workings are near the centre, where a level is driven about 7 fms. north of the engine-shaft, and 12 ft. from surface, in which the lode is from 2 to 4 feet wide, composed of flookan, capel, spar, and gossan, with rich silver-lead ores interspersed throughout, all of which is good stamps work. The shaft is sunk 7 fms. 4 ft., by the application of a horse-engine to drain the water. In the bottom of the shaft the lode is 3 ft. 6 in. wide, 2 ft. of which is flookan, and the other 18 in. is composed of friable quartz, prian, and capel, with rich silver-lead ores interspersed throughout, all of which is good saving work, and worth 15*l.* per fm. The shaft is being sunk sufficient size for an engine, at a cost of about 5*l.* per fm., including timber. The lode has been opened at different places, by costeaning about 100 fms. north of the shaft, and in every pit there is a large strong gossan, bespangled with lead. Judging from the nature of the lode, and the strata throughout the sett, there is every reason to expect a profitable mine with a small outlay; and we would say, such indications, and so much ore so near the surface, are but rarely met with. Several samples taken from the lode produced, by assays, as follow:—

No. 1.—65 per cent	for lead,	and 151	ounces of silver to the ton ore.	
2.—57½	ditto	and 77	0 dwts. 17 grs.	ditto.
3.—60	ditto	and 88	8 dwts. 4 grs.	ditto.
4.—37	ditto	and 82	12 dwts. 8 grs.	ditto.
5.—15	ditto	and 49	11 dwts. 11 grs.	ditto.
6.—57	ditto	and 151	17 dwts. 0 grs.	ditto.
7.—32	ditto	and 98	5 dwts. 0 grs.	ditto.
8.—73½	ditto	and 163	6 dwts. 10 grs.	ditto.
9.—73½	ditto	and 151	0 dwts. 0 grs.	ditto.

With the exception of Nos. 8 and 9, we are informed all those samples were assayed as taken from the mine, without being dressed. Having carefully and deliberately taken into consideration the best and most expeditious mode of working the mine, we recommend the erection of a small steam-engine immediately: in doing so, you will be enabled to sink the shaft with great speed; and, in a short time, there is every probability of making profitable returns.

WHEAL TREHANE.—Capt. S. Richards (July 7) reports—In the 55 fm. level cross-cut we have driven 3 fms. 2 ft., and intersected the lode about 2½ ft. wide, which looks well; it is composed of quartz, can, and lead, and, as far as now seen, will produce at least ¾ ton of lead per fm. The underlay from the

45 to this level is only 5 ft., or 6 in. per fm., from which we may calculate the lode to be shortening but little in this sett as we progress in depth; the lode in the 45 north is now 3½ ft. wide, and producing two-thirds of a ton of ore per fm.; the lode in the stope, in the back of this level, continues to produce about 6 cwts. of lead per fm.; the lode south, in this level, stoping towards Phillips' shaft, and the stopes north of the winze, or south boundary (mentioned in last report), are producing about 1 ton of lead per fm. The stopes, in the bottom and back of the 30 fm. level north, are turning out some tolerably good work; in the cross-cut, driving west, in this level, we have discovered an east and west course, underlaying north (running nearly parallel with the line of cross-cut), on which we are now driving; it is altogether about 1½ ft. wide, composed chiefly of mundic and killas, with a little friable quarts and spots of lead; the ground is very favourable.

WHEAL TRELAWNY.—Capt. John Bryant (July 11) reports—In the 62 fm. end south, by stripping down a piece of the western wall, we discovered the main part of the lode, which produces stones of good ore, but not of much value; in this level north, no lode has been taken down since my last report; the lode in the rise, in the back of this level, is worth 10*l.* per fm. In the 52 fm. level north, the lode is producing good stones of ore, but not rich; in this level south, the lode is 3 ft. wide, composed of spar, can, mundic, and lead, worth 6*l.* per fm. We have resumed sinking the winze under this level, where the lode is worth 12*l.* per fm.; the stopes, in the back of this level, are very similar to my last report, except one about 15 fms. south of shaft, which will produce upwards of a ton of ore per fm. The lode in the 42 fm. level north is worth 7*l.* per fm.; the stopes in the back of this, and the 32 fm. level, are yielding a fair quantity of ore. The ground in Trelawny's shaft, sinking under the 52 fm. level, is more favourable than was last reported. I cannot speak of any change in the 52 fm. level cross-cut west, or the 22 fm. level cross-cut east, of this shaft. At the north mine, the lode, in Smith's shaft, under the 30 fm. level, is worth 6*l.* per fm.; but, from an increase of water, it is suspended for the present. The lode in the 30 fm. level north is split into several branches, all of which underlie west—consequently, we think the main part of the lode is in that direction, and are now cross-cutting to prove the same. We sampled 90 tons of ore on the 8th inst., which will be sold on the 17th.

FOREIGN MINES.

DEEP RIVER MINES.—The following are extracts of letters received from Capt. Paul, agent to the mining company in North Carolina:—*Deep River Mine, June* 17.—I have the pleasure to inform you, that I reached Jamestown on Thursday evening last, and all with me, in good health and spirits. I visited this mine yesterday for the first time; and, not to keep you in suspense any longer, I will just tell you, that in two minutes after I reached it, I inquired for the heap of ores; I was, in a short time, led to it, and (as the Americans say) I was right glad to find such a beautiful lot of rich copper ore; I did nothing to ascertain its quantity—but, if all through alike (as I am told it is), I think near 300 tons may be calculated on; this we shall know more about in a short time, as we are preparing floors (or shall commence them on Monday) for preparing 100 tons as quick as possible for market. I have examined the top of the shaft, the water being 25 ft. from the surface, and believe we shall be able to make it do for engine-shaft, &c., to get the water out. I have not decided on the spot for the engine as yet, but think to do so on Monday or Tuesday next. I have only just time to say, that I am better pleased with the prospects of the mine, from the appearance of the ore, than I had calculated on; if it do not make a good concern, it will be the most deceptive thing I ever saw.

IMPERIAL BRAZILIAN MINES.—*Gongo Soco, May* 3.—Our gold returns from breaking up the surface at Gongo will have assured you that we are still actively at work. At present we have quite labourers enough to do all that is required here, whilst, at the same time, we have filled every house at Bananal with inhabitants. You may rely, that no one shall be located at one establishment, if he could be more profitably employed at the other. All hope of benefit from farther underground works in Gongo we have been forced to relinquish. No opportunity of remitting has ever been lost: on the present occasion, little as we have to send, every grain of gold in the treasury goes forward. The pumps will not be here until the middle of June, and I fear will not work until the very last days of that month—if, indeed, before the early part of July. No exertion shall be spared to get them into operation at the earliest moment possible; but the want of them has driven us to extend our shallower levels, and kept us back in the deeper ones, far more (in either case) than we should have done had the mine been regularly drained. As soon as we can reach the bottom, we shall extract gold, we hope, regularly; but we cannot ensure it, on account of the uncertainty of the contents of unexplored ground, of which, indeed, you have had ample experience. A troop of 55 animals, with the requisite conveyances for the pumps, superintended by one chief stableman, and commanded by Thomas Gray, left this place, on its way to Rio, this morning, taking in one box (lbs. 16 9 3 22 troy) of gold dust, exclusive of the Government duty of 10 per cent. levied here, and I trust it may reach you in safety. Our own troop will bring this machinery far more cheaply and expeditiously than a native troop would have done—if, indeed, any one would have conveyed them, which seems more than doubtful. Respecting Bananal, I have only to report that the water-wheel, having been already fully loaded, works the 14-in. pumps more slowly than it worked the 12; and our operations in sinking Walker's shaft are, therefore, much interrupted. The flat-rods between this shaft and the new water-wheel are in a forward state, and the adit, especially from the same shaft downwards, is going on well. Hollingsworth's shaft has reached the shallow adit level, and a communication has been opened at this depth.

Gold workings from the 22d April to the 2d May—4 lbs. 2 ozs. 6 dwts.

Received from the Agents, Messrs. Mackay, Miller, and Co., dated Rio Janeiro, May 22.

On the 18th inst., the large troop sent down from Gongo Soco, for the conveyance of the pump machinery, and for the four miners, per *Linnet* packet, arrived; it started again on the following day, taking the remainder of the machinery. By the *Linnet* packet, to sail in about 8 or 10 days, we shall send a small quantity of gold, received from Mr. Henwood for transmission to you—say, about 16 to 17 lbs. troy (value about 880*l.*)

NATIONAL BRAZILIAN MINES.—*Cuiaba, May* 6.—I have much pleasure in handing you the monthly mining report of the Cuiaba Mine, at foot of which you will observe the quotation for produce for 10 days; and, unless some unforeseen check or impediment suddenly presents itself, we may safely reckon on a much better produce for the forthcoming 10 days.

Produce—Cuiaba.....	*Mks.*	4 2 5 27
,, Cocaes.....		10 2 6 63—*Mks.* 14 5 4 18

ST. JOHN DEL REY MINES.—*Morro Velho, May* 8.—Produce for April, 16,059 oitavas=154·181 lbs. troy, from 3744·8 tons of ore, yielding 4·288 oits per ton.

When you recollect that we lost nearly two days' stamping by the accidents to the regos at the beginning of the month, that April is one day short of the preceding month, and that we necessarily suffered some loss, as well as considerable inconvenience, by the Easter holidays, I think you will agree with me, that this produce is comparatively quite as great as the hitherto unprecedented produce of March, and will, therefore, I trust, obtain the full approbation of the board.

Stamps working during 30 days, 61 1-10th heads.—The supply of ore abundant, with the exception of the two or three days immediately following Easter Monday, when the previous cessation of work during the holidays made itself perceptibly felt on the spalling-floor.—Cost for April, Rs. 29,920 112, at 27d..... £3397 3 6

Produce, 16,059 oits.; less duties, 7 per cent., 1124 oits.—net oits., 14,935, at 7s. 6d.		5600 12 6
Profit		£2203 9 0

The new stamps are progressing steadily; the level to connect them with the spalling-floor is commenced, and there appears a fair prospect of getting one-half (say, 18 heads) to work in about a month. The other 18 heads will probably not be completed before the middle or latter end of July. Meanwhile, in the amalgamation-house, we are pushing forward the 30-ft. wheel, and additional amalgamation barrels, so as to be all ready for work at the same time as the first half of the new stamps.

DEEP RIVER COPPER MINE.

This mine is situate near James Town, in Guildford county, North Carolina, and consists of about 500 acres of land, the extent, on the run of the lodes, being about 1¾ miles. The Harlan estate is bounded on the east by a rapid stream, called Deep River, and on the west by Richland Creek. There are several veins traceable, taking a course about 40° north of east, and south of west, with an inclination 30° south. The country is granite and killas, and both walls perfectly smooth and regular, with a flookan on the north wall of from 1 to 8 in. thick—the character of the surface corresponds with the mining districts of Cornwall. It appears that the mine was formerly worked for gold, and a vertical shaft sunk 14 fms., from which a cross-cut was driven north, to take the lode; little copper was here found, but the lode paid well for gold in sinking—however, below the copper became more abundant, and the shaft was accordingly sunk to a further depth of 4 fms.; and, having taken the lode by cross-cut, a level was driven west in the 14 fm. level about 45 fathoms, the backs of which were worked for gold; and a level has been driven east, both at the 14 and 18 fm. levels, about 42 fathoms, and communicate by a winze—the whole of the ground back to the cross-cuts 12 fms., having been worked away, producing from 8 to 10 tons of copper ore per fm., of an average produce of 20 per cent. In consequence of a want of power (horses only being employed), the mine was suspended for a time, and the workings only lately resumed. The size of the main lode, when the mine stopped, was about 2 ft. in the eastern end, and 6 ft. west.

The distance to a navigable stream (Fayetteville) is about 84 miles—the cost of carriage being 2*l.* sterling per ton; the charge from thence to New York, 12s.; and again to Liverpool, 12s.—to which must be added sundry charges—say, 20s., or in all 4*l.* 4s. per ton; and it is calculated that the ore may be raised, dressed, and made ready for transport, for 3*l.* per ton—making, together, 7*l.* 4s. per ton—while the estimated value may be taken at 12*l.* to 15*l.* per ton; thus leaving a wide margin for profit, or excess, over the expenditure—more especially when it is considered that, in driving one end alone, the lode produces 8 to 10 tons per fm. A cross-cut has been put out in the 14 fm. level north, cutting a parallel vein at about 80 ft. distance, which is 5 to 6 ft. wide, with the same underlay; there is also another parallel vein, about 80 fms. south, on which considerable work has been done for gold, and a quantity obtained. The mine having been worked solely for gold, the copper ore raised was unheeded—from 1500 to 2000 tons of rich copper ore having been ground for the purpose of extracting the gold—no value being attached to the copper, which was carried down the streams. About 350 tons, however, are now lying at surface, which, from an assay made of a fair sample, has been found to produce 27⅞, 31¼, and 32½ per cent.; its description that of yellow ore. It is proposed to carry on the workings by a company which has been established in London—the whole of the shares having been subscribed for, and an engine ordered, which will be in active operation on an early day. The question of smelting the ores on the spot is under consideration; but as there is the probability of a railroad passing near the mines, which will bring them within three days' communication with New York, and as, moreover, copper smelting works being in active operation at Boston and Baltimore, and also new smelting-works, now in course of construction at Staten Island, within a few miles of the city of New York, where it is said ores can be sold as advantageously as at Swansea, this matter will, doubtless, be deferred. Fuel is plentiful, and charcoal can be obtained at 1d. per bushel—while there is abundant water-power for working gold or saw mills on the Richland Creek, and the country is represented as being very healthy.

The company have secured this tract, both surface and minerals, by purchase, which is about 500 acres in extent, free from all royalty, in addition to which they have secured an adjoining plantation of 380 acres, at 1-16th dues, for 21 years, subject to purchase at the sum of 8000*l.*—the right of working thus acquired being about 2½ miles in length, and including 880 acres. The management is confided to the able supervision of John Taylor, jun., Esq., assisted by the services of a board of directors, of which John Taylor, Esq., F.G.S., is one of the leading members. The mine is divided into 1600 shares, and calls have been made on a moiety thereof of 10*l.* per share—the amount at which they are fixed by the registration deed being 15*l.* per share.

Capt. Paul, late managing agent of the Tincroft Mines, has been appointed as resident agent, from whom reports have been received within the past few days, extracts from which appear in our Mining Correspondence in another column.

It is said that the number of goods waggons belonging to the North-Western Railway Company exceeds 11,500; and if these carriages be supposed to be worth only 50*l.* each, they represent a capital of nearly 600,000*l.*

ROYAL SANTIAGO MINING COMPANY.

The ordinary half-yearly general meeting of shareholders was held at the offices of the company, on Wednesday, the 12th inst.

Baron DE GOLDSMID in the chair.

The minutes of the last meeting having been read and confirmed, the SECRETARY (Mr. Dockar) proceeded to read the report and accounts of the company:—

REPORT.

At this annual general meeting, the directors submit to the proprietors a report on the affairs of the company, and the result of the operations for the half-year ending the 29th February last. Good progress has been made in developing the Trevince Mine, and the late letters hold out the prospect of intersecting the mineral vein in the course of a few months. In the Descubierta Mine operations have been prosecuted uninterruptedly with full force, and cross-cuts extended from it into the two adjoining pertenencias for discovery. The only productive workings, however, are in the Descubierta, from which, in this half-year, 678 tons of ore have been obtained. The veins still continue small, but deeper levels are in progress, to ascertain whether or not the mine will improve for permanent operations, with a remunerating profit. Of the ore which has been obtained in the half-year, 265 tons have been sold, and produced net 2220*l.* 0s. 6d.; the remaining 413 tons would be shipped off from the mines to Swansea about the middle of last month; and, by an estimate, at the present low standard for copper ore, will produce net 3061*l.* 3s., which, added to the sum of 560*l.* 11s. 7d. of interest accumulated on the unemployed capital, makes a total of receipts, as per annexed account, of 5841*l.* 15s. 1d.

The proceeds of the sales of the ore have fallen considerably short of any former period, owing to the great decline in the market price of copper ore.

The expenditure for the same period, in the workings required to keep possession of the various pertenencias, opening new ground for discovery, and working the productive veins, amounts to 6223*l.* 15s. 6d.

The manager, who lately returned to this country on the expiration of his engagement, as well as his successor, are strongly of opinion that our prospects are very favourable; and, as the necessary labour of following out their suggestions in developing the lodes can be done at a moderate expense, owing to the company having already the machinery and materials, the directors have deemed it for the interest of the proprietors to authorise the agent to proceed with the works.

The directors have endeavoured to form an estimate of the probable amount of capital which would be required for conducting the affairs of the company; and they are of opinion that, without impairing the efficiency of the resources required for working the mines, and in every respect to maintain the interests of the company, a return may now be made of 25s. per share on the 7000 shares, amounting to the sum of 8750*l.*; the payment of which will be made to the shareholders, at the office, on and after the 24th inst., and endorsed upon the scrip certificates.

In conformity with the regulations of the company, one director, Alderman Thompson, M.P., retires at this period by rotation, and the directors recommend him for re-election; and Edmund Jerningham, Esq., one of your auditors, also retires, whom they propose for re-election.

Abstract of Balances, 30th June, 1848.

Money at interest, at bankers, and Bank of England, bills for ore sold, not yet due	£35,621 15 5		
Copper ore on voyage home	3,061 3 0	38,682 18	5
Amount drawn by agent at the mines, and other accounts, of expenditure for the current half-year ending 31st August, 1848, against which — tons ore have been raised.....		4,969 9	9
Steam machinery, &c.....		741 13	6
Total		£44,394 1	8
Working capital on 31st August, 1847.....	£40,931 8 10		
Since reduced, by loss on half-year ending 29th Feb., 1848, per profit and loss account (particulars as under *)	382 0 5	40,549 8	5
Acceptances (not yet due)		3,000 0	0
Amount due to sundry parties at date.....		844 13	3
Total		£44,394 1	8

* *Particulars of the Profit and Loss Account—Half-year ending 29th February,* 1848.

DR.—To expenditure in wages, mining materials, timber, carriage, miscellaneous expenses, and income-tax		£6223 15 6
Total		£6223 15 6
CR.—By net proceeds of 265 tons ore per *Sun beam*.....	£2220 0 6	
Net proceeds of 413 tons ore, to arrive, estimated at ...	3061 3 0	5281 3 6
Interest on unemployed capital		560 11 7
Balance, being loss on half-year, carried to working capital account..		382 0 5
Total		£6223 15 6

The CHAIRMAN then begged to submit, that the report and accounts, as read, be received and entered on the minutes; in doing so, it was rather as a matter of form, and not in any way to pledge the meeting to their adoption, which would form a distinct motion, when any shareholder who might have occasion to make any comments or observations thereon, would have the opportunity of so doing.

In reply to a question from a proprietor, as to the amount of rest, or reserve fund, after the payment of the proposed dividend of 25s. per share, the SECRETARY stated, that the balance remaining would be 31,799*l.* 8s. 5d.—the loss during the past six months was 382*l.*—The CHAIRMAN then formally moved the adoption of the report.

Dr. SNOW assumed, that the question of the Sanctuary ground being now settled, there was no occasion for so large a reserve fund being retained on the part of the directors.—The CHAIRMAN, interrupting the hon. proprietor, begged to dissent from the proposition advanced by that gentleman, as he could not, for a moment, allow the impression to go abroad, that the matter had been finally settled; there were circumstances attendant, which he was not at liberty to reveal. He (the chairman), however, considered himself called upon to set the hon. proprietor right on this point.

Dr. SNOW assumed, at the present stage, that no more money would be required for the law suit, which he certainly understood was at an end, or virtually so; and that, with a reserve fund of 40,000*l.* and upwards, he considered the directors might very fairly declare a bonus, or return of capital, to the extent of 2*l.* per share, which would then leave a floating capital exceeding 26,000*l.* to carry on the efficient working of the mines. It must be remembered, that the proprietors had not received dividends for a considerable length of time. He considered that a return to the extent named by him would be hailed as a boon by the majority of shareholders, among whom were many who held a large interest. He should, under such circumstances, and entertaining the views he did as to the policy of the measure, and as there would be an ample balance left for prosecuting the mine, move an amendment—"That the amount be fixed at 40s. per share, instead of 25s., as recommended by the directors."

The amendment having been seconded, Capt. LAMONT rose for the purpose of making a further amendment, to the effect that the sum to be returned should be after the rate of 3*l.* per share, which he considered might be safely done, which amendment having been briefly seconded by Capt. BRIGGS,

The CHAIRMAN expressed his desire that the meeting should perfectly understand the position in which the company was placed. It was, in the first instance, one of the main objects, for the security of the directors and the body of shareholders, that there should be an ample reserve fund, on which they might fall back, if it were found desirable to extend their operations, or required funds to protect their interests in one way or another. It should be remembered, that this company was placed very differently from other associations formed for working mines, there being no deed of settlement, or Act of Parliament, by which it is governed, or to which the shareholders are subjected, so that any call made might be enforced. Such being the basis on which the company had been formed, and being carried out, he (the chairman) had only to observe that, forming a contrast as it did with other schemes, he could not be a consenting party to any deviation therefrom—indeed, without such security, he should not have held the post as director, which he had done from the commencement. The object of the reserve fund was to secure a sum which would form a security, and afford ample working capital, without calling upon the proprietors. He believed that a certain interest was at work out of doors, whose object was to put an end to all foreign mine adventures, inasmuch that the large quantities imported reduced the value of copper ores, and hence was prejudicial to the home mines. It was, however, for the shareholders to be sceptical as to the truth of the statements put forward by interested parties. There was no doubt but that there were many who would wish to have the company put an end to for their own private interests; but he would caution the shareholders generally from listening to such insidious statements as were put forward by their enemies, for he could hardly use any other term. If that the present reserve fund should be swallowed up, no matter in what way, and that more money was wanting, he would then ask where were they to seek it? It should be borne in mind that the company was not registered, that the shareholders were unknown, and that they might relieve themselves from all responsibility, at any time, by putting their scrip into the fire, and hence the necessity of having a large reserve fund. The directors had exercised every degree of caution as to the outlay or application of the funds placed at their disposal, and in recommending that a return of 25s. per share be made to the proprietors, they considered they could do so with security, and in no way impair the position or prospects of the company. It might be observed that, at present, the entire force employed at the mines did not exceed 130 or 140, while the number formerly working was between 700 and 800, and such, he hoped, might again, perhaps shortly, be the case, although he did not wish to hold out any flattering expectations; the workings, however, might doubtless be considerably extended, affording increased employment, and necessarily requiring an increased capital. He had only to repeat that there were certain contingencies for which they should be prepared, while he could not admit that the question with the Cobre Company should be assumed as being at an end. It was his distinct advice and counsel to the shareholders, not to reduce the reserve fund below 30,000*l.*; indeed, he did not consider it would be safe to do so, taking into consideration all circumstances. The money in hand was lent out at interest, bearing from 2½ to 3 per cent., instead of 5 per cent., which it was possible the proprietors might obtain; but the object of the company was to avoid all risk, and, at the same time, have a hold on the capital, should such be found necessary. He should conclude by again saying, do not reduce your reserve fund—do not take the advice of your enemies, whose object is to get rid of foreign mines, to uphold those at home, by tending to an advance in price of ores from the reduced supply.

Sir SAMUEL SCOTT (a director) fully concurred in the sentiments expressed by his colleague the hon. chairman. As the holder of a large interest in the undertaking, and representing many friends, he should, most certainly, be anxious to divide largely, if such course could be pursued with prudence; but he was satisfied it would be taking a false step, if they were to act on the counsel or advice of the movers of the amendment then before the meeting.

Mr. CHATFIELD expressed his perfect concurrence in the views entertained and expressed by the directors, as to the dividend, or bonus, being limited, and should give them his cordial support.—The mover of the amendment for making the sum to be returned 3*l.* per share, then expressed his readiness to withdraw it.

The CHAIRMAN deemed it right again to impress on the meeting the importance to be attached to the peculiar constitution of the company, there being no responsibility incurred. The interest of the directors was clearly that of upholding and protecting the interests of the body of shareholders. If the resources of the company were entrenched upon, the object of their enemies out of doors would be achieved.

Dr. SNOW wished to observe, that he had ever supported the directors—indeed, he believed he was the party who on a former occasion, when a dividend was proposed, was the means of the proprietors foregoing the same; but he considered the position of the company at the present moment very different. The Sanctuary question he had considered to be finally settled; but the chairman had referred to contingencies. He must, however, observe, in justification of the course he had taken—in moving an amendment for an increased amount to be returned to the shareholders, beyond that recommended by the directors—that, after paying the sum so required (14,000*l.*), there would then remain in the hands of the directors 26,500*l.*, which he considered ample for the purposes of the company as a working capital, considering that, although it might have been contemplated in the onset to have a reserve fund of 30,000*l.*, yet it was to be remembered, that they had their staff and machinery now on the mine; and he could only repeat, that he thought the addition of 15s. per share might have been given. He begged to say, that he was not guided by the reports, or advice, of any parties out of doors; but merely took the report and accounts submitted by the directors as his ground work. As it, however, appeared that the directors were opposed—and, doubtless, for cogent reasons—to increase the proposed dividend, he was not prepared to take upon himself the responsibility of opposing them, or of being the means of interfering with their plans, which he doubted not had been well reflected upon, ere they arrived at any conclusion. As the directors had said they could not safely pay the 40s., he would at once withdraw his amendment.

The CHAIRMAN, in acknowledging the courteous manner in which the hon. proprietor had withdrawn the amendment, observed, that the opinions entertained by the former and present agent were highly favourable, and that he doubted not their force would, ere long, be very considerably extended: while it would be the object of the directors to economise the funds of the company, and not to take a larger amount than was found to be essentially necessary; in which Sir SAMUEL SCOTT expressed his perfect concurrence—at the same time, stating it was the desire of the directors to make as large a return as the affairs of the company would justify.

Capt. CHRISTIE (the seconder of the amendment) would not allow the amendment to be withdrawn, as he still considered that the reserve fund was far too large.—The CHAIRMAN stated, that the moneys were put out to interest with undoubted guarantees.

The Hon. LESLIE MELVILLE at once seconded the adoption of the report, confining the amount of bonus to 25s., which, having been put from the chair, was carried with three dissentients.—The re-election of Mr. Ald. Thompson as a director, and Mr. Jerningham as an auditor, was unanimously agreed to.

Dr. SNOW wished to make one other remark ere the proceedings of the meeting closed. The discussion which had taken place that day was calculated to do much good, and would, doubtless, give confidence to the proprietary at large. He did not disapprove of the judgment of the directors, or the course they had adopted; but he felt it right to moot the question, which had elicited so much satisfactory information from the directors. He could only tender them his tribute of respect for the services they had rendered the company in the arduous performance of their duties.

A vote of thanks having been unanimously passed to the directors, the CHAIRMAN briefly returned thanks—assuring the meeting that it would stimulate them to further active exertions; that the capital should be husbanded, and the interest of the proprietors promoted, so far as was in their power. On the part of his colleagues and himself, he had to return thanks.—The meeting then separated.

WHEAL CURTIS MINING COMPANY.

The adjourned half-yearly general meeting of shareholders convened for the 5th instant, was held, pursuant to adjournment, at the Guildhall Coffee-house, on Thursday, the 13th inst.—RICHARD HALLETT, Esq., in the chair.

A considerable delay took place before the business of the meeting was entered upon, owing to there not being a sufficient number of shareholders present (20) to constitute a meeting, as required by the deed of settlement, as prepared under the Joint-Stock Companies' Registration Act, by which the company is governed. After the lapse of nearly an hour, the business was briefly opened, by the chair being taken.

The SECRETARY proceeded to read the advertisement convening the meeting for the 5th inst., as also the notice of adjournment, and, further, the objects for which the meeting may be said to have been more especially called—viz.: that of confirming the confiscation, or forfeiture, of certain shares on which the calls had not been paid, and the holders of which had received the required notices. It appeared therefrom that the directors had, in pursuance of the powers vested in them on the 1st of April, declared certain shares forfeited, on which the calls should not be paid by a given day; and, further, on the 13th May, had, in like manner, declared certain other shares forfeited, after the lapse of a certain period.—The minutes and other notices having been read, a discursive, and somewhat personal, conversation ensued on subject of the solicitor's amended, or supplemental, "bill," which had been laid on the table, but not read or ordered to be printed.—A MEMBER (Mr. Taylor) wished to draw the attention of the meeting to a bill of costs which he then held in his hands, ranging from November, 1847, up to that day, amounting to 146*l.* 15s. 4d., in addition to 300*l.*, which had been previously paid that gentleman, in which he observed certain charges for attendance, and the performance of those duties which devolved on him in his office as director; it was on this account alone, that he wished to put the question to that gentleman (Mr. Bull), whether, in the course he was taking—that of proposing a resolution—he was to be considered in his capacity as director or solicitor.

Mr. BULL begged to observe, that he was completely in the hands of the meeting—observations such as had been made he could not consider otherwise than as invidious, and calculated to effect no good, but arising from personal feeling. It was well known at the time of his appointment as director, that he then held, as he now did, the office of solicitor, and he thought it was hard to charge him with a neglect of his duty in the one capacity, while he duly performed those services required of him in the other. Had he been appointed by the directors, or been self-elected, he could well imagine there would be grounds for an outery; but the fact was, he was elected by the body of shareholders at a general meeting. He should, under such circumstances, hold pointless any remarks which might be addressed, as referred to him, however much he might deprecate them.

The CHAIRMAN stopped the discussion by directing the attention of the meeting to the real objects for which they had met, and trusted there would be no personal charges or recrimination—whereupon, Mr. G. F. SMITH moved, that the report, or minutes, of the directors, declaring the several shares forfeited, should be read.

Mr. TAYLOR considered that they were not acting in accordance with the order generally observed at public meetings, when it was ordinarily the case that a report and accounts should be presented previous to other business being entered upon.

Mr. STAPLEY expressed himself to a like effect; and, at the same time, considered it only right, at this moment, to enter his protest against the forfeiture of the shares standing in the name of Capt. Pilkington, which, he believed, were some 1500, or thereabouts—that gentleman was, at that moment passing through an ordeal, whereby he would be released from all claims; but it was only right to observe, that the shares had not been returned as property, and, moreover, that they had been attached by him (Mr. S.) in the Lord Mayor's Court. He considered it due to the creditors that he should state these facts to the meeting, and he would suggest that the confirmation of the forfeiture of that gentleman's shares be deferred for a fortnight.

Mr. BULL (the solicitor of the company) observed that, looking at the question in a legal point of view, he had no hesitation in saying, that the meeting was fully justified in declaring the shares forfeited; the clause in the deed was perfect in itself, and the mere attachment referred to could give no title beyond that possessed by Capt. Pilkington; the garnishee of any property could only possess himself thereof, as in the present case, by paying any demands or arrears due—such as the calls on the shares held by the gentleman referred to.

Mr. G. F. SMITH would offer a remark on the question at issue. It must be borne in mind, that three months' notice was given to the parties in arrear, ere the forfeiture took place, and hence ample time was afforded them for meeting the demand, or making some arrangement, should they be desirous, or in a position, of so doing. It was clear, that it was really for the benefit of all parties, except the *bonâ fide* shareholders, that the shares should be at once confiscated, as there was, at least, 1700*l.* due on them, while shares might, he understood, be bought in the market at 6s. to 10s. per share. Consequently, there could be no injury inflicted.

Here the discussion on this matter dropped; and, with reference to certain shares held by Mr. Fagan, who formerly filled the office of purser, and who had instituted a claim against the company for services rendered, it was, in the end, deemed most prudent not to forfeit that gentleman's shares; but, assuming that he could establish his claim, to allow this to be put forward as a set-off, and which would leave a balance in favour of the company.

The accounts of the company were then read, it appearing that no report had been prepared. The following is an abstract:—

RECEIPTS.			
Calls.....	£2863 0 10		
Advance by Mr. Hallett	615 15 0	£3478 15	10
EXPENDITURE.			
Paid expenses at the mine	£954 9 3		
Account in Cornwall.....	1109 0 1		
Evans's Account	450 0 0		
Account	138 18 10		
Rent.....	21 10 4		
Interest	4 14 10		
Directors	103 18 0		
Sundry persons	313 14 10		
Hallett, on account advanced	382 9 8	£3478 15	10

The assets consisted of calls on shares, 3176*l.* 0s. 8d., the majority of which were forfeited at the meeting, inasmuch as the directors did not contemplate receiving more than 655*l.*, while the liabilities, which did not include the solicitor's bill and other items, were set down at 1506*l.* 5s. 5d.—thus leaving a balance of 800*l.* or 900*l.* against the company.

We may here mention, that at some time, and in the course of the proceedings, 1000 shares were forfeited, but we believe it would be difficult to define when; but such resolutions were, in effect, carried.

The CHAIRMAN would recommend a course which he considered would be acceptable to "one and all," which was the appointment of a committee, who should examine into the affairs of the company, and also the accounts, and who should report at a subsequent meeting to be held. He entertained the highest opinion of the property; indeed, he had never heard but one opinion of the mine, and that of the most highly favourable nature. It should be remembered, that at the time of himself and his co-directors coming into office, the mine was in debt 3200*l.* This incubus had never been got ridden of; they (the directors) had always a debt to work against—while the absence of supplies from the shareholders, more especially those whose shares had been forfeited, placed them in in a position, that it was only by having recourse to their own private purses that the company had been upheld. He, for one, had done his best, whether by advancing his cash, or by the services he had rendered the company, in devoting much time and attention to their interests. He would suggest, that a committee be formed, to whom he should be happy to render every assistance and information in his power. He should wish it to be perfectly independent, and was well satisfied that their report would give confidence to the proprietors at large, and, doubtless, reorganise the company, and be the means of bringing them to a successful issue.

Mr. BULL recommended, that the deed should be strictly adhered to. He considered it necessary, that the meeting should confine itself to the receiving of the accounts, and not to appoint a committee, which was no part of the ordinary proceedings of a general meeting. It might be necessary that a committee should be formed, but the meeting must be, in that case, confined to that particular office.

We will not attempt to follow the further proceedings, except to advert briefly to their nature. Complaints of irregularity of proceedings, non-production of report, and no arrangements being made as to the re-election of directors—for all appeared to be in the dark, from the chairman, solicitor, and secretary, down to the humble adventurer, as to the course to be pursued, or whether an election was required to take place, or otherwise—questions as to the passing of the accounts, the appointment of a committee, sundry charges and counter-charges, which, however, amicably terminated by—

Mr. THOROGOOD moving, that a committee be formed for looking into the affairs of the mine, and the entire business connected with the company, as also examining the accounts that day submitted, which resolution, having been seconded by Mr. CRANBOOK, was carried unanimously—the following gentlemen being named as members of the committee, who, it was understood, would make their report that day four weeks (the meeting being held at the office of the company):—Messrs. Thorogood, Coles, Busby, Smith, Abbot, Taylor, and Drake; three to form a quorum.

After some further conversation, a vote of thanks having been given to the chairman, the meeting separated, with more satisfactory and pleasant feelings than it was evident influenced them when they met each other.

With the prospect the mine holds out from general report, we hope the committee will effect that which the directors could not prosecute—the working of the mine with active and intelligent agents—uphold its position as regards the financial department—and impart confidence to the shareholders. We do not blame the present board of directors, who appear to be earnest in the cause; but there are ills we will not speak of, except one—the Joint-Stock Companies' Registration Act—by which the company is governed. It is a pretty plaything for the lawyer, but not for the adventurer; and we believe it cannot be carried out without many obstacles presenting themselves, which do not, in any way, apply to mines carried on under the Cost-book Principle.

PATENT GALVANISED IRON COMPANY.

A special general meeting of proprietors was held at the London Tavern, on Tuesday, the 11th inst., pursuant to advertisement.

The advertisement convening the meeting having been read, the CHAIRMAN opened the proceedings, by stating that the two Acts of Parliament had passed both Houses—that for carrying on the company having received the Royal assent, and which was also expected to be given to that passed for winding up the affairs of the old company in the course of a few days. The several operations of the company had been reduced so far as was practicable under the depressed state of the trade—at the same time, it afforded him much pleasure to be able to state his belief that, notwithstanding the depression in the markets, the business was being carried on without entailing any loss. The joint report of the directors and shareholders appointed as a committee at a previous meeting, was then read, from which it appeared, that the efforts made to meet all the company's engagements had been attended with successful results, and recommended that the affairs of the old company should be at once brought to a close, pursuant to the Act of Parliament, which only required the Royal Assent; and, in furtherance of this object, to reduce all expenditure to the lowest possible amount, and recommended a change being effected in the active management of the affairs of the company. The report concluded, by stating, that every assistance had been rendered, in furtherance of the objects of the inquiry, so as to enable them to arrive at a perfect result.

A report, drawn up by Mr. Ernest, the accountant appointed to investigate the accounts, in November last, was then read. The document itself is too lengthened—covering a space of 10 years' operations, and involving several hundred thousand pounds, on the debit and credit sides—to admit of our following it in detail, and we must, therefore, needs confine ourselves to the main points presented, avoiding the deductions drawn by that gentleman, inasmuch as it will be seen a committee has been appointed further to investigate the accounts, and the general affairs of the company. It appeared from the report so presented that, according to his deductions, the operations in Wales, since the establishment of the company, or for a period of 10 years, had been attended with constant losses, in addition to which, several of serious amount had been incurred upon their transactions in London, while bonuses and dividends had been declared, on the assumption that profits had been made.

The report likewise stated, that in London, and at the works in Staffordshire, the accounts had been uniformly generally correct, and well kept, although some trifling errors had been detected; but the account for dead work in Wales had not been properly distinguished—such being calculated to mislead, from charges having been put to dead work, which should have gone to current expenses, and no allowance made for wear or tear, although one of the principal collieries had been inundated, whereby a loss of upwards of 10,000*l.* had been incurred. Certain losses had also been sustained in the transactions of the company, amounting to 2181*l.* 18s. 9d., which should, in his opinion, have been carried to profit and loss account; in addition to which, losses had arisen to the extent of 17,086*l.* 1s. 10d.—composed of rescinding rail contract, 5352*l.* 10s. 2d.; galvanised patent expenses for experiments, &c., 666*l.* 10s. 6d.; loss by inundation of colliery, 10,691*l.* 16s. 4d.; sundries, 368*l.* 1s. 2d.—the above sums together (19,248*l.* 0s. 7d.), with deficiencies of stocks, and the reduction in value, amounting to 34,843*l.* 18s. 7d.: making, together, 54,091*l.* 19s. 2d. to be deducted from the company's assets, which was exclusive of any reduction in the value of the works themselves—arising from the depressed state of the iron trade at the present moment, or other causes attendant thereon.

A discussion ensued, from which we collected that the loss by the inundation of the colliery (Tyr Gunter), 10,691*l.* 16s. 4d., had been regularly brought forward in the accounts submitted to the proprietors, and stood as a separate item in the balance-sheets, and which the company expected to recover from Sir Robert Price, in the cause frequently adverted to in our columns, as an action pending on account of damages sustained by the company. The loss by rescinding contract for rails (5352*l.* 10s. 2d.) would be more than covered by a contract entered into at an increased price, and to effect which the apparent sacrifice was made, while virtually a considerable advantage was derived. The several sums, amounting to 1034*l.* 11s. 8d., explained themselves; while the amount of bad debts, deficiency in stocks, and depreciation in value, amounting to 34,843*l.* 18s. 7d., were considered by some parties to have been only such as might be reasonably calculated upon, if the whole of the circumstances were taken into consideration. Great dissatisfaction was manifested by several of the shareholders on the *exposé* thus made; whilst others, on the contrary, thought that, looking at the whole circumstances of the case, the affairs of the company would, after passing the ordeal, come triumphantly out, in comparison with any other, at a period of such depression to which the iron trade had been subjected.

Mr. KELLY then moved, that a committee, composed of five members, should be appointed to examine into the reports submitted to the meeting, and the accounts of the managers.—The resolution having been carried unanimously, thanks were given to the directors for the past year, the committee of shareholders, and the chairman; and the meeting, which was numerously attended, separated.

CARADON WHEAL HOOPER.

A general meeting of shareholders was held at the mine, on the 3d inst., when the accounts were presented, showing—Balance of last accounts, 50*l.* 14s. 10d.; cash on calls, 383*l.* 13s. 8d.; due on calls, 264*l.* 18s. 2d.=699*l.* 6s. 8d.—Mine costs, to April 7, 165*l.* 15s. 3d.; to May 12, 222*l.* 12s. 7d.; merchants' bills, 294*l.* 0s. 6d.: leaving balance of 16*l.* 18s. 4d.—A call of 25s. per share was made; and Capt. John Richards, of the Consolidated Mines, requested to survey the mine, and furnish his report to the next meeting. The following report, from Capt. John Seymour, was read to the meeting:—

Caradon Wheal Hooper, July 3.—I am sorry to say on this occasion that our operations have not been so progressive for the last two months as I expected at our last meeting. I then fully thought we should have sunk the shaft to the present 58, and cross-cutted two of the lodes ere this; but, in consequence of a large quantity of water proceeding from between the killas and granite, and the hard rock the men have had to cut through in the shaft and ends, they have at least taken two months to accomplish what would have been completed in one, had not the ground changed for the worse. Now, I am happy to inform you, that there is a very great change for the better south; the price for driving is 6*l.* per fm., and I expect to cut the lode in this end in about a fortnight; the end north to this level is put out 2 fms.; there are about 3 fms. more to the caunter lode—this will occupy the men five weeks, if no change for the better. The ground in the 50 end north is moderate—price for driving 8*l.* per fm. I have reason to think that you are anxious as well as myself to see the lode cut in this end, and are ready to ask why it is not cut, when we have been expecting it for some time past. This I cannot account for, except it is heaved by the slides we have passed through in the south level; there are several of them, all of which heave the lodes north from 2 to 3 ft. each; this greatly strengthens my confidence in its being met with in a productive state in this level, and I should think that the end cannot be far off from it. I wish to remind you, that but little has been done to prove the value of the lodes, our operations having been confined principally to sinking and cross-cutting the country. The mine is at a point that demands your greatest attention. Before the next general meeting of shareholders, there will be three, if not four, lodes cut to the 50 and 58, and a little time to open on some of them, if not on all. I should think, from what you see here taken from the lode, the situation the mine is in, with what you see others are doing near us, you will agree with me in making this assertion, that Caradon Wheal Hooper can scarcely any longer be termed a speculation, but a certainty. Wherever the lodes have been opened on, though but a short distance, they are more or less productive of copper.

July 11.—To day the men have cut a large stream of water in the 58 end, which indicates we are getting near the lode.

CASCADE MINING COMPANY.

A general meeting of adventurers was held at the offices, Haymarket, on the 8th inst., when it appearing expedient, as well for paying off present liabilities as for carrying on the works, recommended by Capt. Opie, that a sum of 450*l.* should be immediately raised, it was resolved, that of the 628 shares remaining still unsold, the present shareholders be requested to take up a portion at par (1*l.* per share), and in the proportion of 1 for every 10 and under they may hold; and further, such proposed allotment being insufficient to absorb the whole 628 shares, that option be given to each shareholder to increase such proportion as he may feel disposed. The meeting was adjourned to the 17th inst., to ascertain the number of shares allotted under this arrangement, and also for transacting other business relating to the mine. Capt. Opie's recommendation, as above referred to, will be found in the following reports, forwarded by him on the 16th and 27th June, and laid before the meeting:—

"*June* 16.—To do justice to this sett, the adit must be driven as far as Brentor Road, as the south lode is by far the most promising one as seen in costeaning; but you are aware we shall intersect two other lodes before the south one. My opinion of this favourable adventure cannot change, because the lodes remain to be cut, and they can be cut with a very small capital."——"*June* 27.—We have about 20 fms. to drive to cut Wheal Susan lode, and the cost will be about 100*l.* The distance from Wheal Susan lode to the south lode is 50 fms., which will require about 300*l.* = 400*l.* This is an extreme calculation."

WHEAL TREVENNA MINE.—At a general meeting of adventurers in the above mine, held on the 7th inst., it was resolved to stop the workings of the mine, and sell the materials within a month; and a committee was appointed to direct the sale and wind up the concern.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

SOUTH WHEAL BETSEY.—I can only advise you now that the lode they cut last week in the cross-cut from the adit is most encouraging; they will save all the lode that they are now breaking. I saw some splendid stones of lead; and, although they have not a good course of lead, yet a more kindly one I never before saw.

BWLCH CONSOLIDATED MINES.—The whole of the machinery was completed, and in full operation, by the 10th June, and the prospects of the mines are progressing satisfactorily—60 tons of lead were sold in London, on the 1st inst., at 12*l.* 0s. 6d. per ton; and on the 10th, 60 tons more were sampled.

ACCIDENTS.

Rowley Regis.—T. Stokes was unfortunately killed by a fall of roof, while working in one of Mr. Darby's pits.

Tividale Hall Colliery.—A serious accident took place at Messrs. Hopkins and Bradley's, near Dudley, by the fall of a large quantity of coal, killing a boy, about 14 years of age, named James Careless, and injuring four others, a man and three boys. Their names are Joseph Foxall, to whom great praise is due for his prompt assistance to his fellow-sufferers, although he was bleeding profusely at the head at the time from a lacerated wound, and otherwise injured in the back; John Yarnopp, who has had one of his thighs dislocated, and also sustained a concussion of the spine; Jacob Webb (brother to the unfortunate young man who was killed on Monday, the 3d inst., at Messrs. Wagstaff and Skidmore's Colliery, near Tividale), injured in the back; and Isaac Stanley, another boy, who has received a slight injury to his right arm. The poor fellows were about to prop up the coal with timber, when it suddenly fell down upon them.—*Wolverhampton Chron.*

Dalmarnock.—A collier, named Bell, of Dale-street, Bridgeton, was killed while working in Mr. Wilson's colliery.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending July 8, was 16,119; amount of money, £67 3s. 3d.

ANTIMONY AND SILVER-LEAD MINE.

SIR,—I find no report from this mine in your last Journal; and as this is the only means by which I am able to obtain any information respecting the above undertaking, I feel disappointed at the report having been omitted. I hope they continue making discoveries; and, although I do not expect the "pockets" of antimony will be the means of filling our pockets with money, yet I have some hopes of the silver-lead ores doing something for us.

City, July 12. A SHAREHOLDER.

CARN BREA MINES.

SIR,—I observe, in your publication of the 17th June, a letter from a shareholder in the above mines. Although unwillingly, I am obliged to confess to what he says, as to the unpopularity of the Carn Brea Mines; but, at the same time, I must observe, that I believe—in fact, I know—he ascribes it not to the right causes. It has been long felt by parties engaged in mining pursuits, that the salaries given to the agents of mines are too small, altogether inadequate to the responsibility attached to their several offices; in short, that a false economy has been hitherto practised. Acting, then, on a sound discretion, the committee of management have done wisely in giving Mr. Pike an income commensurate with the duties he has to perform, although, perhaps, not equal to the responsibility of his situation. They would have acted, perhaps, still more wisely, if they had given that gentleman twice the amount of his present salary, and invested him with the powers of commissioner, instead of that of a purser. If "A Shareholder" had been aware, as he should be, of the responsibility also which the committee of management have taken on themselves, he would not, I think, like to share it for his proportion of 300*l.* a year. Does he not know, that under the system by which the Carn Brea Mines have been managed, not one single month's cost has ever been vouched for, and passed by the adventurers; and that the committee are each and severally liable for any misappropriation of the funds of the company, which have or may befal them? I am not here as the apologist, or defender, of the committee of management of the Carn Brea Mines—of whom, with one exception, and that of the slightest acquaintance, I know nothing beyond their undoubted personal respectability—but to state what I know to be the actual causes which affect the character of these mines in public estimation. First and foremost, then, is the total absence of all control of the adventurers over the management—not of the finances, but the economical working of the mines. This uneasiness of feeling has been much increased of late by the continued large samplings of ores, which have been thrown into the market at an unusual state of its depression, and at a time when all other mines were effecting reductions. Again, it is a matter of serious observation, that the large amount of supplies to this mine, instead of being purchased by tender, as in other large mines, are made a matter of private patronage. There is also no central power on the mine to direct its operations: if by the manager "A Shareholder" means Capt. Lyle, at 200*l.* a year (by the way he has 240*l.*), no one knows better than "A Shareholder" himself, that Capt. Lyle spends 11 out of the 12 months in London. How occupied, "A Shareholder," who is not "as green as a leek," could also tell us if he liked.

Looking, however, at these matters seriously, and with much consideration, the committee of management have resolved to call periodical meetings of the adventurers on the mine, which, I have no doubt, will lead to very favourable results—remove a heavy responsibility from themselves, and place the character of the mine in that position it so well deserves from its own intrinsic merits, and for which concession, on their part, I feel, in common with many shareholders, deeply sensible.—T. I. H.: *Clapham, July* 12.

GREAT ROUGH TOR CONSOLS.

SIR,—Your correspondent, under the signature of "A Shareholder" in this mine, it appears, has overlooked the agent's report, inserted in the *Mining Journal* of the 13th May, since which there has been nothing sufficiently new, or important, to require particular notice. If your correspondent be really a shareholder, he would have had a copy of the Journal forwarded to him, as well as the other shareholders. One was received by me. A SHAREHOLDER.

July 14.

SOUTH WHEAL BETSEY.

SIR,—In looking over the mine reports, in your last week's Journal, I observed the following observations by Capt. Spargo:—"The statement which has been made by an individual, who professes himself to be far superior to others"—"that the above lode is hove upwards of 60 fms. west." "Now (says Capt. Spargo) I must say that this statement is altogether erroneous; never was it yet known that a north and south course was hove by an east and west course"—"it is alogether against the laws of Nature," &c., &c. The conclusion of his report is tantamount to stating, that nothing short of practical experience in the mine can qualify a man to give an opinion on such subjects. I freely admit, that it is quite impossible for any person to make a *bonâ fide*, or really useful, report of a mine, without having had considerable experience in underground works; but there are *two kinds* of reports—the real and the vague. Some of the latter we have lately seen, which, by the use of a few technical terms, traditions, and other mining embellishments, might entrap the unwary, but never an old adventurer. However, the population of a poor mining district ought to be thankful for such reports—inasmuch as mines are being worked, which, as a profitable investment of capital, would be condemned by any conscientious practical miner. We shall leave these *scapegoat* reports to those to whom they concern, and come to more interesting questions—viz.: By what law of Nature is Capt. Spargo guided? How is it that he is so positive that a north and south lode *cannot* be hove by an east and west lode? Why should not the country move to the east or west as well as to the north? Perhaps, he will favour us with a reply, and also give us some idea of the structure and composition of the country on the south-east and south-west sides of the respective lodes. I look forward with great interest to the success in the west cross-cut, where, I have been informed by a friend, there is a prospect of a large course of ore dipping southward; and, although wide and branchy, yet may afford a good produce. Being greatly interested in mines, I peruse the mine reports every week with much attention; and to me these reports are the most important part of your very useful Journal. A SUBSCRIBER.

COPPER AND LEAD DUTIES BILL.

This long-pending bill, which, being founded upon the Budget, has stood upon the Parliamentary list, for a second reading, ever since, was again postponed, on Thursday night, until Monday, upon which Mr. WYLD asked the Chancellor of the Exchequer, whether it was really the intention of the Government to bring on this bill on Monday? Many persons, said the hon. Member, were deeply interested in the settlement of this question; and the Government was highly culpable, for allowing so important a measure to remain in a state of uncertainty for such a long period.

The CHANCELLOR of the EXCHEQUER replied, that he did not expect to be able to bring it on on Monday, but he would promise to give notice, whenever it was intended to proceed with the measure.

This delay seems the more extraordinary, from the fact, that the Board of Customs is acting as though the bill had actually passed, and admitting the foreign ores upon the terms proposed by this measure.

[From the *Plymouth Journal.*]

PLYMOUTH WHEAL YEOLAND.—Capt. C. Thomas, the agent of Dolcoath, inspected this mine on Tuesday for the adventurers, and will make his report on Wednesday next.

CALLINGTON MINE.—This mine is looking very prosperous at present; but owing to the great reduction on the price of ores, it is making a difference of about 500*l.* per month on this mine only. It is to be hoped that the importation of foreign ores will be stopped before long, otherwise a great many of our Cornish mines must fail.

EXTRAORDINARY ROPE OF GALVANISED IRON-WIRE.—We last week gave the particulars of a rope of extraordinary length, recently manufactured by Mr. Andrew Smith, C.E., of Millwall, Poplar. We were correct in our description; but its destination, it appears, was for one of Mr. Treffry's planes, on his Par Railway—the highest in the kingdom—and not for the Fowey Consols.

LOCOMOTION ON COMMON ROADS.—We have already announced, that Sir James Anderson is about introducing one of his improved locomotives for trial on the high road at Kensington. We are glad further to learn, that appearances are greatly favourable for the success of the undertaking—his additional experiments being highly successful, and fully one-fourth of the required amount being already subscribed.

THE BRITISH ASSOCIATION AT SWANSEA.—A meeting of the local committee, appointed for making the various arrangements and preparations necessary for the reception in August, of the British Association, took place last week, in the Royal Institution, Swansea. Mr. Moggridge, one of the local secretaries, reported that considerable progress had been made in the preliminary preparations for the association. The amount already subscribed, together with sums put down by gentlemen then in the room, came to 570*l.*—this being, of course, exclusive of the sum of 500*l.* voted by the corporation of Swansea to the Mayor, in aid of the objects of the association. The excursion committee reported, that a list had been made of the works which it would be most desirable to inspect, the coal and iron mines to be visited, the caves and limestone rocks to be examined. Indeed, the principal difficulty did not consist in finding places of sufficient interest to engage the attention of the visitors, but in selecting those most easily available. Professor Phillips remarked, that not only did this country abound with subjects of interest, but the liberality of the proprietors exceeded his most sanguine anticipations. The report of the location committee detailed the accommodation provided for visitors, which was ample, and at moderate terms. Mr. Grove explained the probable routes which visitors would take, pointing out the importance of having additional accommodation on the road, between Cardiff and Swansea, and the necessity of obtaining first-class steamers from Bristol during the three or four days of the meeting.

IRONMASTERS' QUARTERLY MEETINGS.

Wolverhampton, July 12.—The quarterly meeting of ironmasters was held here to-day; the attendance was not numerous, and comparatively only a small amount of business was doing; so far, however, as could be ascertained, the trade is already partially recovering from the depression which has hung over it during the last two months. The orders for manufactured iron are steady, and various circumstances would lead to the supposition that, in the absence of the most untoward occurrences, iron will not be lower for some time to come than it is at present. There are considerable orders in some of the houses for rails for America; these will help to sustain present quotations, especially in view of the fact, that the dealers in London have scarcely a ton of iron in stock. That the general state of the trade is far worse than it was at the corresponding period of last year, cannot be denied; at the same time, notwithstanding that prices are lower, it is, perhaps, upon the whole, in a more healthy condition than it was immediately after the panic set in last October. The present prices are—bars, 6*l.* 10s.; hoops, 7*l.*; and sheets, 8*l.*—these being understood as referring only to the best material. As a proof that the ironmasters themselves have confidence enough that prices will not further recede, we may cite a fact, on the authority of one of the largest and most respectable makers in the district, that an order for so large a quantity as 1000 tons was refused a day or two since at the current price, on the consideration of the delivery being extended over a period of nine months. For pigs the figures may be quoted 3*l.* to 3*l.* 10s.; for these the price will probably be maintained. Stocks are now not large; and I was informed to-day an order was accepted for 300 tons at 2s. 6d. better than would have been given a fortnight since. The foregoing, in all probability, presents as accurate a sketch of the actual state of the trade as can be presented. Opinions are generally tolerably diversified amongst those engaged in this trade; but, as these facts are gleaned from the heads of the largest houses, they will most likely be found to be correct, and so far to be relied upon, in preference to those circulars which fly about—issued, for the most part, by interested parties, and presenting but an imperfect reflex of the condition of the trade. Affairs generally in the district are flat and unsatisfactory; but, perhaps, not more so than they are in other quarters. The men are tolerably quiet; and where reductions in wages have been attempted, they have been submitted to. The coal trade remains steady; prices will, in all probability, remain stationary.

Birmingham, July 13.—The meeting of ironmasters has been held here to-day, at which there was a very large attendance, and some rather considerable orders were given by the manufacturers. The entire state of the trade is so fully reviewed in the report from Wolverhampton, that little additional information can be offered. Prices are, undoubtedly, firmer than might be expected, even at existing quotations; and as orders are creeping in gradually, it is probable that they will rather look upward than experience another retrograde movement. For pigs the demand is increasing, especially for the better qualities. Notwithstanding the general depression in trade, accounts were paid (as far as could be ascertained) with remarkable punctuality.

THE COAL TRADE *v.* THE IRON TRADE.—A meeting of the coalmasters of the Stourbridge and Kingswinford districts was held at the Stewponey Inn, near Stourbridge, on Monday last, and a resolution adopted that no reduction should be made in the price of coals. Notwithstanding the excessive dulness of the iron trade, the demand for coals in this neighbourhood, as well as around Dudley and West Bromwich, has suffered little or no diminution; and a fair average employment has yet been found, according to the season of the year, for all sale collieries. The stocks of coals on the hands of the country dealers towards Warwick, Worcester, Oxford, and Gloucester, are by no means increasing, nor does there appear to be any general call for a reduction in the prices of coal. The owners of sale collieries, therefore, feel but little inclination to volunteer lower rates, or make further experiments upon the scale of colliers' wages. They allege that they are not called upon to follow the unusual movements of the ironmasters, and that the late reductions in iron are chiefly the result of over production and faithless underselling, and will not prove serviceable to stimulate increased consumption—while a similar giving way on their part would immediately be followed by a decline in demand; so that it will be better to wait for a short time, and meet any temporary slackness by a restriction of the quantities raised—it being well known that from the termination of harvest until Christmas, is the busiest season of the year in the coal trade. The ironstone getters, however (commonly designated as miners), will, we fear, be early called upon to submit to a reduction, as they are unlimitedly dependent upon the operations of the iron trade.—*Birmingham Gazette.*

THE GARTH WORKS, MAESTEG.—As a preliminary step to a change in the proprietary of these works, all operations in the mineral department have been suspended; and judging from the number of shareholders (about 120), whose individual interests must be considered, and the absence of any apparent stimulus to a speedy adjustment of the company's affairs, owing to the continued depressed state of the iron trade, there is some reason to fear that active operations will not be resumed for a month or two at least. The neighbourhood presents at this time a singularly quiet aspect, and reminds one of the melancholy stillness of a deserted village. The different short-cut thoroughfares to the levels, situated on Garth Hill, are no longer trodden by the sturdy miner and collier. The rattling of the trams over the successive inclines, occasionally echoing from the hill, has ceased for a time. The three furnaces, with their costly appurtenances, are now become the resort of birds, where, instead of the voice of man amid the busy hum of commerce, nothing is heard save the chirping of pugnacious sparrows—all these combined present a *striking* instance of the fluctuating nature of the iron trade.—*Swansea Herald.*

BLAENAVON IRON-WORKS.—These works, we are informed on very good authority, have entirely suspended their working. The cause of this, we hear, is that a reduction of 10 per cent. was proposed to the men at the pay on Saturday last, to which they objected, refusing to go to work at anything short of the pay they had been receiving for some time back. The consequence is, that the whole of the furnaces have been put out of blast, and business of every kind at Blaenavon is at a standstill. This is an unfortunate state of things, and we hope it will be remedied with as little delay as possible.—*Shrewsbury Chron.*

PEN-Y-DARRAN IRON-WORKS—MR. ALDERMAN THOMPSON'S ANSWER TO THE ADDRESS AGREED TO BY THE PEN-Y-DARRAN WORKMEN, ON THE 15TH OF MAY.—A report of the workmen's meeting, at which they agreed to present an address to the proprietors of the works on the renewal of the lease, having appeared in our Journal at the time, we have now much pleasure in giving the sequel in connection with these most gratifying proceedings, alike creditable to the workmen, agents, and proprietors. Mr. Alderman Thompson arrived at Pen-y-Darran House on Tuesday, and on Thursday evening the workmen availed themselves of the opportunity of presenting the address. Having arrived in large numbers by the office, the worthy alderman gave them permission to appear before him in the large room upstairs, but as many hundreds were outside, and could not be accommodated even in that spacious room, the worthy alderman, accompanied by S. Homfray, Esq., of Tredegar Iron-Works, Mr. B. Martin, governor of the works, &c., went down, and having taken their position on the steps, J. Rees, weigher, the chairman of the meeting, came forward, and spoke as follows: "Sir,—Having had the honour of presiding at the public meeting at which the address to the Pen-y-Darran Company was adopted, we have this evening approached you for its presentation; assuring you, Sir, that it emanated entirely from the good feeling entertained by the workmen towards their employers, and their mature consideration of the importance of the lease being renewed, and not from any suggestion from those in authority. I beg also to introduce an old workman of 58 years' permanent service, as one of the deputation (there are scores from 20 to 50 years' servitude) to present the address, according to the resolution of our meeting."—The old workman having handed in the address, it was read by E. Davies, weigher, to which the great ironmaster replied as follows:—"G. Brown, R. Thomas, G. Phillips, T. Evans, and other worthy and industrious workmen employed at the Pen-y-Darran Iron-Works, I thank you in the name of my partner, Mr. Forman, and also in my own name, for this gratifying token of your consideration. I feel a just pride in knowing that there are among you those whose families have been employed at these works through several generations, and some of you, I am told, varying from 20 to 50 years; and the anxiety, therefore, which has been expressed, that the connection should continue, is not only creditable to you, but redounds to the credit of the several agents under whom you have served, and especially to Mr. Martin (pointing to that gentleman), who has had the direction of the entire establishment. The Pen-y-Darran Works have existed more than 60 years; the coal and mineral fields belonging to them have become exhausted, and it was necessarily a subject of great interest to you, whether a new mineral field would be added, or the works abandoned: and as far as the personal feelings of Mr. Forman and myself were to be consulted, the latter alternative was to be preferred; but we could not forget the many years of faithful servitude which you and the agents had rendered to our predecessors and to ourselves; and therefore it was that we decided to risk an immense outlay of capital in new winnings, and to sacrifice our ease, rather than let thousands of families be driven from their happy homes, to seek employment elsewhere, and at a period of great depression in the iron trade, when all were diminishing and not extending their establishments. These are, I do solemnly assure you, the considerations which influenced Mr. Forman and myself, and the address which you have just presented to me proves how highly you have appreciated our motives. The new mineral field about to be added to the Pen-y-Darran Works is of such extent, that in the natural course of events it will exist beyond our time, and I offer up to the Giver of all Good my ardent aspirations that this establishment may, for generations yet to come, afford constant and profitable employment to thousands of peaceful, industrious, and skilful artizans. I think this is not an unfitting occasion to tell you, that I have under consideration a place whereby I hope the means of a better education will be provided for your children; it is my anxious desire that they should receive a moral and religious education. I am convinced the advantage will be, that they will become Christians, better subjects, and better servants, and that they will be better able to appreciate the laws and institutions of the country, and the blessings which they enjoy under the paternal rule of a benevolent, virtuous, and gracious Queen." The worthy alderman immediately withdrew, and was loudly and deservedly cheered by all present. The workmen then separated.—*Swansea Herald.*

RUSSIAN IRON.—There have been several arrivals of iron from St. Petersburgh within these few days. The vessel *John*, from the Russian capital, has brought 940 bars; the *Resolution*, 314 bars; the *Advena*, 987 bars; the *Helen*, 1880 bars; the *Sophia*, 1596 bars; the *Harlequin*, 2478 bars; the *Mars*, 1766 bars; the *Canton*, 3133 bars. At the same time the vessel *Wilton*, from Cronstadt, has brought 1849 bars, and there have been other arrivals of the article from that port, the production of Russia.

INCREASE OF RAILWAY TRAFFIC.—The traffic returns on the railways in the United Kingdom, during the first half of the present year, amounted to 4,477,000*l.*, and the number of miles open at the end of that period was 3830, giving an average return of 1169*l.* per mile. For the corresponding period of last year, the traffic returns amounted to 4,002,740*l.*, and at the end of that time 3150 miles were open, giving an average of 1270*l.* per mile. It shows that while the mileage was increased nearly 22 per cent., the traffic only increased 11·9 per cent.

LIGHT-HOUSE APPARATUS.—The vessel *Pharos*, arrived in the Commercial-docks, from Havre, has brought 69 boxes, 9 cases, and one other package of light-house apparatus of French manufacture, intended to be shipped immediately from hence to Leith. This large parcel of light-house apparatus, consisting of lens of large size and power, is understood to be imported on account of the Commissioners of the Northern Lights, and are intended to be used for the light-houses under their direction.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning Eleven o'clock.

Bank Stock, 9 per Cent., 194 3 4½	Belgian, 4½ per Cent., 68
3 per Cent. Reduced Ann., 87⅞ 8	Dutch, 2½ per Cent., 44⅛ ⅜
3 per Cent. Consols Ann., 87½ ⅝	Brazilian, 5 per Cent., 70
3½ per Cent. Ann., 87⅞ 8	Chilian, 6 per Cent., 83
Long Annuities, 8⅛	Mexican 5 per Cent., 17 ½
India Stock, 10½ per Cent., 237½ 40	Russian, 5 per Cent., 99¼ 8½
3 per Cent. Consols for Opg., 87½ ⅝ ⅝	Spanish, 5 per Cent, 11⅛ 12
Exchequer Bills, 1000*l.* 2d. 39 42 pm.	Ditto 3 per Cent., 21⅛

MINES.—The amount of business transacted in the mining share market has been rather limited this week, although we find a constant inquiry for shares in several mines, but at prices that sellers will not conform to.

Inquiries are being made for South Wheal Francis, East Wh. Rose, Charlestown Mines, &c., but we are not advised of any sales having been effected at our quotations.

Business has been transacted in Great Devon Consols, South Basset, Mary Ann, Tregorden, Pennant, Tamar, Bedford United, Tincroft, West Wheal Seton, Comfort, Carwinning Hill, Camborne Consols, Callington, Trehane, Herodsfoot, Cameron's Steam Coal, &c.

The Royal Santiago Mining Company held their half-yearly meeting on Wednesday, the 12th inst. By the agents' reports (and confirmed by miners recently returned), the mines have some favourable appearances, although the lodes in the present levels are small. During the past six months they have been worked to a loss of 942*l.* 12s., which is reduced to 382*l.* by the interest of 560*l.* 11s. 7d. on accumulated capital. The reserved fund amounts to 40,549*l.*, and the directors recommended that 25s. per share be returned to the shareholders, when a balance of 31,800*l.* would remain in hand, which was considered sufficient for any future operations that might be deemed advisable to pursue —which proposal was ultimately agreed to.

The smelters have reduced the price of copper 10*l.* per ton. Tin and lead, however, maintain their prices, although the demand is limited.

By letters received from Adelaide, we learn that the mines of the colony are generally progressing most satisfactorily, whilst new sources of mineral wealth are continually being developed, which affords the means of livelihood to a vast number of miners and labourers—indeed, the metalliferous productions of the colony may be considered the main channel of its amazing prosperity. We have seen a letter from Adelaide, addressed to a friend, in which the writer observes—"What astonishes me the most is to see how the labourers get on—many by employing themselves and others in carrying ore from the mines to the port in bullock drays clear 14*l.* and 18*l.* per month—in fact, many clerks have left their situations to join the less respectable professions of bullock drivers, hut keepers, shepherds, &c. * * * Miners make a great deal of money here, all of them earn from 2*l.* to 3*l.* a week; and, in many cases, where they have taken a portion of a mine on tribute, one person has cleared 100*l.* in a couple of months or so," &c. This, we consider, will be pleasing information to those who are about to emigrate from the great mining district of Gwennap, in Cornwall, where we understand arrangements are making, on an extensive scale, for the departure of a large portion of the mining population who have been thrown out of employment by the suspension of mining operations, in consequence of the low price given for the ores.

In foreign mines several transactions have taken place in United Mexican St. John del Rey, Bolanos, Real del Monte, &c.

Despatches have been received by the St. John del Rey, Imperial Brazilian, and National Brazilian Mining Companies, per H.M.S. *Collingwood*.

The St. John del Rey letters are up to the 8th of May, showing the returns for April to be 16,059 oits., making a profit of 2203*l.* 9s. for that month. The agent's report represents the mines in a highly flourishing position.

The Imperial Brazilian letters are dated from Gongo Soco, May 3, and advise the company's troop having left for Rio, to bring up the machinery, &c., to Bananal; and also the forwarding of 16 lbs. 9 ozs. 3 dwts. 22 grs. to the company's agents at the port, for transmission to England. The agents, on the 22d of May, advise the safe arrival of the gold dust, and the return of the troop to Bananal, with all the machinery. We may, therefore, expect that the whole is fixed, and in full operation by this time.

The National Brazilian letters advise to the 6th of May, giving the returns of 10 days' working, amounting to 14 mcs. 5 ozs. 4 oits. 18 grs. The chief commissioner's reports represent the mines as progressively improving, and the probability of larger returns in future.

The letters received from the Asturian mines represent the operations and returns as very satisfactory, as far as they have proceeded. The furnaces answer well, and the demand for the iron increasing. The call of 10s. being the moiety of the 1*l.* call, made some time since, will become due on the 1st of Aug.; and, from the present prospect of the mines, there is little reason to fear that the call will not be readily responded to, as it is expected no further amount will be required.

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgth. Rway.	Present actual cost.	Price per share	Last Div.	*Traffic Returns.* 1848	1847
Birkenhead, Lancashire, & Chesh.	15	997,284	57	5 *p. c.*	£909	814
Caledonian	130	3,594,470	29½	—	4070	—
Chester and Holyhead	59½	2,871,470	21	—	1045	—
Dublin and Drogheda	35	754,529	29⅜	—	826	1023
Dublin and Kingstown	7¾	473,282	—	6	1289	1232
Dundee, Perth, & Aberdeen Junc.	47	415,073	26	8	1193	1011
East Anglian (Lynn to Ely)	55½	1,062,742	6½	—	606	—
East Lancashire	26	1,733,915	17⅝	—	1044	878
Eastern Counties and Norfolk	295	9,833,859	14⅝	4	16019	17447
Eastern Union	51½	979,926	20	-	1367	1065
Edinburgh and Glasgow	53	2,481,767	42	--	3391	3386
Edinburgh and Northern	29	1,392,092	17⅞	4*	1602	—
Glasgow, Paisley, and Ayr	64½	2,097,321	76	6	2158	2652
Glasgow, Paisley, & Greenock	23	845,554	15⅜	4	1389	1380
Gt. Southern & Western, Ireland	110½	1,809,787	25½	4*	3262	1[illegible]
Great Western	281⅝	10,970,636	90	7	22562	22[illegible]4
Kendal and Windermere	10½	169,888	23	—	219	196
Lancaster and Carlisle	70	1,395,193	53¼	4	2065	1460
Lancashire and Yorkshire	136⅝	7,597,618	86	7	10515	9408
London and North Western	428	21,513,354	127	8	42170	43070
London and Blackwall	4	1,241,061	4⅝	1⅞	1295	1454
London, Brighton, & South Coast	161½	6,087,822	32⅛	4	10693	9694
London and South-Western	189	6,264,164	48	8	9984	10198
Londonderry and Enniskillen	14½	145,135	16	—	145	139
Manchester, Sheffield, & Lincolnsh.	62	2,336,624	58⅜	5	2674	2291
Maryport and Carlisle	28	440,851	40	—	585	646
Midland Company	422⅜	9,853,122	105	7	21469	20647
Midland Great Western (Irish)	36⅜	725,332	10⅛	4*	1009	826
Newcastle and Carlisle	66½	1,407,375	107	6	2365	2615
North British	81	2,800,748	22½	5	2111	1964
Scottish Central	33	——	23⅝	—	1005	—
Shrewsbury and Chester	17	780,272	15	-	637	438
South Devon	50½	1,609,071	16	—	1596	845
South-Eastern	165½	6,932,181	25½	6¼	9336	9489
Taff Vale	38	820,056	126	5⅝	1651	1456
Ulster	36	684,684	52	4⅝	830	971
Whitehaven Junction	12	147,095	7	4½	180	222
York, Newcastle, & Berwick	242½	4,466,526	32⅝	9	11516	10196
York and North Midland	230½	3,799,297	68⅛	10	8357	7325

✗ CALEDONIAN RAILWAY.—A meeting of shareholders, opposed to the financial propositions of the directors, was held at the London Tavern yesterday—Mr. JACOBS in the chair.—The meeting was called to consider the proposal of the directors to raise 745,180*l.*, by the issue of 7*l.* per cent. preference shares.—Mr. LITTLE declared, that he had convened the meeting. Being interested in the line to the extent of 5000*l.* or 6000*l.*, and having received no notice of the meeting, but merely seeing an advertisement in the *Times*, that a general meeting of shareholders would be held in Edinburgh, on Thursday, the 20th inst., to decide on that important question, he thought it advisable to call the shareholders together, to ascertain their sentiments. He stated, that the directors had not applied for the extension of time, for the completion of the branches, and that they could not legally raise this 800,000*l.*, without first coming to the shareholders, and showing the grounds which justified such an act. He had addressed a letter to Mr. Hope Johnstone, the chairman, for the purpose of getting any information he could for this meeting, but he was informed that he was gone to Scotland. He considered, that any resolution for that purpose, if passed, would prejudice the property of the shareholders, and ought not to be agreed to without the directors first giving the shareholders a statement of their financial position, and showing the necessity for such further capital. A gentleman of the name of Oliphant retired from the room at the request of the chairman, as he was not a registered shareholder of the company. He was said to be the brother of the solicitor to the company.—A SHAREHOLDER said, he understood the money was required to pay off the debentures falling due at 4½ and 5 per cent. He had given his proxy to the assistant-secretary on that understanding.—The CHAIRMAN was astonished that any official of the company should have interfered for such an object.—Mr. TAYLOR thought that it was most injudicious to issue these shares and prejudice the original shareholders, without a clear statement from the directors as to the money being all spent, and showing the precise objects for which they were to be raised.—After some further discussion, it was unanimously agreed that a subscription be entered into, and that a deputation proceed to Edinburgh to obtain an interview with the directors prior to the meeting, to be held on the 20th inst., so as to get the same adjourned; and, in the interim, that the directors furnish the shareholders with a clear statement of the financial position of the company, and the grounds for issuing the proposed new shares.—After a vote of thanks was passed to the chairman, the meeting adjourned.

✗ GREAT NORTHERN RAILWAY.—The contractors, Messrs. Peto and Betts, are proceediug rapidly with their works on the Saxilby line; a substantial and handsome bridge across the Foss is being erected, and will soon be completed. Mr. Giles, the superintendent engineer, overlooks the works very closely, and the line is expected to be opened in Nov. As the members of the Archæological Society are to visit Boston and Tattershall by rail, we presume the loop will be opened for that special occasion. The entire line between Lincoln and Boston is completed, with the exception of the Bardney-bridge, so that the gentlemen will, probably, be conveyed to Bardney, and there ferried over the river; on the opposite side of the Witham a fresh supply of carriages will, we suppose, be in readiness, and thus the learned antiquaries will be conveyed to Boston.—*Lincolnshire Chronicle.*

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price.
1000	Abergwessin	7 ..	—
512	Albert Consols	1 ..	2½
1024	Alfred Consols	4½ ..	5
235	Andrew and Nangiles	28½ ..	5
1000	Antimony and Silver-Lead Mining & Smelting	5 ..	6¼-7
1024	AshburtonUnited Mines	7⅜ ..	10
1624	Balleswidden	9 ..	18
128	Balnoon Consols	25 ..	25
10000	Banwen Iron Co.	6 ..	6½
1000	Barristown	4½ ..	1
4000	Bedford	2½ ..	2-3
1244	Birch Tor Tin Mine	9½ ..	2
8000	Blaenavon	50 ..	17½
100	Botallack	175 ..	80
120	Brewer	5 ..	7
10000	British Iron, New, regis.	10 ..	13
—	Ditto ditto, scrip	10 ..	10
128	Budnick Consols	52½ ..	35
128	Callestock	17 ..	30
1000	Callington	19 ..	21
1000	Camborne Consols	5 ..	6½
20000	Cameron's Steam Coal	6 ..	1
256	Caradon Copper Mine	9½ ..	2
256	Caradon Mines	22½ ..	10
256	Caradon United	24 ..	2½
256	Caradon Wh. Hooper	21 ..	14
1000	Carn Brea	15 ..	90
3000	Carthew Consols	1½ ..	6
2048	Cascade	1 ..	2
112	Charlestown	220 ..	60
512	Coatlithe Hill	⅛ ..	1
500	Comblawn	5¾ ..	6
128	Comfort	45 ..	50
256	Condurrow	20 ..	28
2560	Cook's Kitchen	14 ..	2
1000	Coombe Valley Quarry	3 ..	4
6500	Cornish Mining Co.	2 ..	2⅜-½
1000	Copper Bottom	1½ ..	6½
1024	Cosheen	4½ ..	20
225	Craddock Moor	16½ ..	5
128	Creeg Braws	120 ..	100
500	Cubert Mine	12½ ..	10
1000	Cwm-Erfin	3½ ..	3½
300	D. Prior & Buckfastleigh	14 ..	26
7100	Derwent	8½ ..	5
1024	Devon & Courtenay Con.	7⅛ ..	1½
1024	Devon Great Consols	1 ..	210
1000	Dinurode	2 ..	5
186	Dolcoath	30 ..	15
2560	Drake Walls	4 ..	4
10000	Durham County Coal	45 ..	8
3000	Dyfngwm	10 ..	12½
512	East Alvenney	12½ ..	12½
112	East Caradon	47 ..	47
2048	East Crowndale	5½ ..	4½
512	East Combe Silver-Lead	6½ ..	6½
128	East Pool	5 ..	7
100	East Relistian	22 ..	40
9000	East Tamar Consols	⅜ ..	⅜
—	East Wheal Albert	1 ..	3
94	East Wheal Crofty	125 ..	280
1024	East Wheal Fortune	2 ..	3
1024	East Wheal Friendship	3 ..	3½
128	East Wheal Rose	50 ..	850
2048	East Wh. Rough Tor	¼ ..	2
—	East of Scotland Iron Co.	2½ ..	1⅝
123	East Wheal Seton	14 ..	10
256	Elborough	1½ ..	2
256	Exmoor Wh. Eliza	4 ..	6
512	Fowey Consols	40 ..	45
6400	Gadair	2 ..	2
20000	Galvanised Iron Co.	10 ..	9½
4000	Gen. Mining Co. for Irel.	1⅛ ..	1⅛
2048	Georgia Tin Mines	1⅛ ..	1⅛
2048	Goldscope Mine	2 ..	2
256	Gonamena	34 ..	35
128	Goonvrea	4 ..	1½
100	Great Consols	1000 ..	400
2560	Great Michell Consols	1½ ..	3
256	Great Resugga Moor	11 ..	6
512	Gt. Wh. Rough Tor Con.	15½ ..	20
100	Grogwinion	5 ..	—
256	Gwinear Consols	7 ..	3½
6000	Helgnston Down Con.	⅛ ..	2½
256	Herodsfoot	18 ..	27½-30
10000	Hibernian	12½ ..	1⅝
239	Hobb's Hill	6 ..	3
1000	Holmbush	19 ..	5-4
827	Kirkcudbrightshire	5⅜ ..	2
2048	Lamberooe Wh. Maria	11 ..	4
128	Lelant Consols	90 ..	60
160	Levant	— ..	80
1000	Lewis	15 ..	6½
1000	Llwyn Malees	5 ..	—
3600	Llynvi Iron	50 ..	50
256	Lostwithiel Consols	15 ..	15
6000	Marke Valley	10 ..	2
5000	Mendip Hills	2½ ..	⅝
5000	Merionethshire Slate & Slate Slab Co.	1½ ..	2
128	Metha	34 ..	133
20000	Mining Co. of Ireland	7 ..	5
256	New East Crowndale	3⅜ ..	3⅜
128	North Fowey Consols	37 ..	34
100	North Pool	45 .	350
140	North Roskear	5½ ..	155
256	North Wh. Abraham	1 ..	1
262	North Wh. Leisure	1½ ..	2
15000	Northern Coal Co.	23 .	2
128	Par Consols	— ..	1000
4000	Pennant	1½ ..	1½
100	Penrhiw	30 ..	65
1280	Perran St. George Un.	13 ..	20
128	Perran Wh. Virgin	9½ ..	10
512	Plymouth Wh. Yeoland	6½ ..	23
256	Polsaith Consols	4½ ..	7
10000	Rhymney Iron	50 ..	13
10000	Ditto New	7 ..	6¾
1000	Rosewall Hill	1 ..	5
256	Rosewarva Mines	— ..	12
3072	South Callington Mine	2 ..	3

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price.
128	South Caradon	10 ..	400
1100	South Dolcoath	4 ..	4
256	Sth. Friendsh. Wh. Ann	16 ..	4
200	South Harvannah	10 ..	25
256	South Molton	5 ..	8
256	South Tolgus	10 ..	30
256	South Treiawny	20 ..	12
128	South Wheal Basset	110 ..	105
256	South Wh. Betsey	2½ ..	12½
124	South Wh. Frances	160 ..	175
1000	South Wh. Maria	2½ ..	1½
10000	Southern & Western, Irish	2 ..	4
280	Spearne Moor	30 ..	40
256	St. Austell Consols	9 ..	—
94	St. Ives Consols	— ..	320
128	St. Michael Penkivel	5 ..	10½
999	St. Minver Consols	1 ..	6
1000	Stray Park	43 .	15
9600	Tamar Consols	3 ..	5⅜
1024	Tavy Consols	4 ..	8
6000	Tincroft	7 ..	5⅝
1000	Tin Vale	2⅝ ..	4½
128	Tokenbury	152½ ..	10
—	Tollpetherwin	3½ ..	5
256	Tregordan	⅛ ..	5
256	Trehane	2½ ..	25
5000	Treleigh Consols	6 ..	2½
2000	Trenance	3 ..	15½
96	Tresavean	10 ..	210
120	Trethellan	5 .	15
120	Treviskey and Barrier	130 ..	90
288	Trevean	1½ ..	5
100	United Mines	300 ..	350
256	Wellington Mines	15 ..	10
128	West Basset	45 ..	10
256	West Caradon	20 ..	90
128	West Cargoll	2 .	12
512	West Fowey Consols	40 ..	15
256	West Providence	9 ..	12
200	West Seton	40 ..	160
—	West of Scotland Iron Co.	210 ..	210
120	West Trethellan	5 ..	30
256	West United Hills	— ..	4
512	West Wheal Frances	1⅜ .	2
256	West Wh. Friendship	9 ..	8
3725	West Wheal Jewel	11 ..	1½
2560	West Wh. Maria	3 ..	1
256	West Wheal Tolgus	21½ ..	4-5
256	West Wheal Treasury	19 ..	6
5200	Wicklow Copper	5 ..	10½
184	Wheal Adams	51 ..	10
1000	Wheal Agar	— ..	8
256	Wheal Albert	10 ..	1
256	Wheal Allen	2 ..	5
240	Wheal Anderton	23 ..	27
128	Wheal Ann	— ..	50½
512	Wheal Anna Maria	4½ .	5⅜
1024	Wheal Ash	4½ ..	8
120	Wheal Bal	5⅜ ..	20
2560	Wheal Barbara	1½ ..	4-5
256	Wheal Benny	12½ ..	7
256	Wheal Blencowe	21 ..	5
256	Wheal Bucketts	20 ..	5
256	Wheal Calstock	5 ..	12
136	Wheal Clifford	190 ..	50
1024	Wheal Coud	⅛ ..	5
268	Wheal Courtenay	12½ ..	15
6000	Wheal Curtis	3 ..	⅛
256	Wheal Fortescue	6½ ..	5
388	Wheal Franco	27 ..	20
128	Wheal Harriet	45 ..	50
256	Wheal Jane	21 ..	15
—	Wheal Lawrence	— ..	3½
256	Wheal Louisa	8½ .	8
112	Wheal Margaret	79 ..	250
512	Wheal Mary Ann	5 ..	14½
237	Wheal Mary Consols	42½ ..	5
210	Wheal Prospect	4 ..	7
120	Wheal Reeth	41 ..	150
128	Wheal Rose	60 ..	15
99	Wheal Seton	214 ..	700
194	Wheal Sisters	32½ ..	12
512	Wheal Sophia	3⅜ .	5
128	Wheal Spearne	10 ..	75
128	Wheal St. Ann	9 ..	15
550	Wheal Trescoll	2 ..	10
260	Wheal Trelawny	7⅝ ..	65
256	Wh. Tremaine (St. Ervan)	4½ ..	1½
1024	Wheal Tremayne	35 ..	1½
92	Wheal Tryphena	140 ..	265
242	Wheal Venland	29½ ..	30
256	Wheal Vlow (Perranz.)	⅜ ..	⅜
184	Wheal Vyvyan	— ..	60
256	Wheal Williams	6 ..	8
1024	Whiddon Mines	4⅞ ..	4½

FOREIGN MINES.

5000	Alten Mining Company	14½ ..	2½-3
15000	Asturian Mining Co.	12 .	1½
20000	Australian	2 .	2
10000	Anglo-Mexican Co.	100 ..	2
12374	Ditto Subscription	25 ..	2½
6000	Barossa Range	⅜ ..	1½
3000	Bolanos	150 ..	3
2000	Ditto Scrip	15 ..	3½
12000	Brazilian Imperial	23 .	3
10000	Cobre Copper Co.	40 ..	15
10000	Copiapo Mining Co.	14 ..	2½
10000	General Mining Ass'n.	20 .	11½-12
5000	Kinzigthal Mining Ass.	2 ..	3
20051	Mexican Company	59 ..	—
2000	Mexican & South Amer.	8 ..	⅛
5000	Mocaubas & Cocaes	30 ..	6
100000	N. Brit. Australasian	1 ..	⅛
29320	Rl. del Monte, regis. / Ditto unregistered	28¾ ..	⅝-¾
	Ditto Red Debentures	— ..	4
	Ditto Black ditto	— ..	3
	Ditto Loan Notes	150 ..	26
7000	Royal Santiago	10 ..	5
11000	St. John del Rey	15 ..	8½
43174	United Mexican	Av. 28½ ..	3½ ⅜

LATEST CURRENT PRICES OF METALS.

LONDON, JULY 14, 1848.

	£ s.	£ s. d.
IRON—Bar *a*. Wales...*ton*	5 15—	6 0 0
,, ..London ..	0 0—	6 15 0
Nail rods ,, ...	0 0—	7 15 0
Hoop (Staf.) ,, ...	0 0—	8 15 0
Sheet ,, ,, ...	0 0—	9 15 0
Bars ,, ,, ...	0 0—	8 10 0
Welsh cold-blast foundry pig	3 5—	4 5 0
Scotch pig *b*, Clyde	0 0—	2 6 0
Rails, average	0 0—	6 0 0
Chairs	0 0 -	4 0 0
Russian, CCND *c*..	0 0—17	0 0
,, PSI	0 0—	——
,, Gourieff	0 0—	——
,, Archangel	0 0—13	0 0
Swedish *d*, on the spot	0 0—11	5 0
,, Steel, fagt.	0 0—15	0 0
,, ,, kegse	0 0—13	10 0
COPPER—Tile *f*	0 0—87	10 0
Tough cake	0 0—79	10 0
Best selected	0 0..82	10 0
Ordin. sheets, *lb*...	0 0—	0 0 9
COPPER—Ord. bottoms ..	0 0—	0 0 10
YELLOW METAL SHEATHING	0 0—	0 0 7½
TIN—Com. blocks *g*...*cwt.*	0 0-	3 15 0
,, bars	0 0—	3 16 0
Refined	0 0—	3 18 0
Straits *h*	0 0—	3 14 0
Banca	0 0—	4 0 0
TIN-PLATES—Ch., IC *i*, *box*	1 9—	1 10 0
,, IX ...	1 15—	1 16 0
Coke, IC	1 5 6	1 6 0
,, IX	1 11 6	1 12 0
LEAD—Sheet *k* .....*ton*	0 0—17	0 0
Pig, refined	0 0—18	0 0
,, common	16 0—16	10 0
,, Spanish, in bd.	0 0—16	10 0
Red.....	0 0—18	10 0
Dry White.....	0 0—23	0 0
Shot (Patent).....	0 0—19	10 0
SPELTER—(Cake) *l* on spot	13 10—13	15 0
,, for arrival	0 0—	—
ZINC—(Sheet) *m* export.	20 0—21	0 0
QUICKSILVER *n* .....*lb.*	0 0—	0 3 6

IRON.—In Welch and Staffordshire there is very little doing; the reduction just declared on the latter has been anticipated by the trade for some time past, and sales made conformably. In Scotch an active business was done last week, chiefly by speculators; but, within the last few days, the market has given way.

COPPER, on the 11th inst., was reduced to 9*l.* per ton on unmanufactured, and 1d. per lb. on sheets and bottoms. Yellow sheathing metal was reduced on the same day ¾d. per lb.

TIN and LEAD remain at last week's quotations, with very little doing in either.

TIN PLATES have been in very good demand for the last three weeks; the stocks, which were low, are pretty well cleared off, and the price has advanced about 1s. per box.

SPELTER is rather firmer, but more on account of transactions at Hamburgh, than from purchasers here, who were only buying for actual wants; and this limited demand is now almost suspended, by higher prices being asked.

GLASGOW PIG-IRON TRADE, JULY 13.—An improved feeling has sprung up amongst the pig-iron trade, and the conviction that the article was low priced has led to an increased demand, and a consequent increase in price. There is very little shipping to the continent, and there is not, at present, any prospect of an early resumption of shipments to the continental markets. The home demand has greatly fallen off, so that, with the exception of the American, all the other markets are, with regard to consumption, in a very dormant state. The demand, therefore, must have been chiefly of a speculative kind. To-day the market is easier, with sellers at 46s. for mixed Nos.—cash.

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the last week:—Silver coin to Belgium, 10,000 ozs.; ditto Rotterdam, 159,996; ditto Hamburgh, 19,270; ditto to Calais, 850.—Silvers bars to Rotterdam, 8000; ditto to Hamburgh, 19,460; ditto British West Indies, 870.—Gold coin to Rotterdam, 1870; ditto to Hamburgh, 20; ditto to New York, 500; ditto to Havre, 42 ounces.

NEW PLAN FOR CONSUMING, OR PREVENTING, SMOKE IN STEAM-ENGINE FURNACES.—We visited the cooperage of Mr. J. Robertson, Great Howard-street, and inspected the operation of a new plan or apparatus of his invention for the prevention of smoke from steam-boiler flues. Several scientific gentlemen were present, and expressed themselves highly gratified by the success of the experiments, which, after what we have recently heard from various parties owning steam-works, impress us with surprise, and inspired us with a hope that, though former attempts have proved more or less futile, the grand desideratum may yet be attained—to the great comfort and advantage of the inhabitants of the manufacturing districts. The manner in which Mr. Robertson's apparatus is constructed and applied, we are of course ignorant of, as he wisely retains his secret until he can secure himself as the inventor; but thus far we may say, that the furnace head, a large, long, cylindrical boiler, has only a short chimney attached, and that repeated shovelfuls of coal or slack, put on the fire at a time, produced little or no perceptible smoke from the top; the whole of the substance of matter that would form dense smoke being dissipated in thin vapour or gases, or rather hot air, which scarcely at all, even in the first instance, discolour or thicken the atmosphere. The inventor and those present were of opinion, too, that the draught of the flue was greatly improved, and that fully the same quantity of steam could be kept up by the same quantity of fuel. The steam in the boiler was, without extra exertion, kept up to an almost dangerous degree. The apparatus is, we learn, quite simple and of little cost. Mr. Robertson has been advised by practical men, who have seen the operation of the plan, to bring it under the notice of the magistrates, the Town Council, and other parties interested; and, assuredly, the advantages which it promises, entitle it to the serious consideration of all who value health and comfort in towns or places where steam-engines or furnaces are employed. —*Liverpool Standard.*

SOUTH-WESTERN RAILWAY.—The trains regularly run from the new Waterloo station, and the branch line to Hampton Court is expected to be opened by the 1st of August—a great number of additional hands are at work to facilitate its completion. The distance is about two miles. Endeavours are also using to get the Windsor and Richmond branch completed sufficiently to open on the same day. The branch from Basingstoke to Salisbury is going on rapidly: all along the line the greatest bustle and activity are observable.

✗ WATERFORD, WEXFORD, AND DUBLIN.—A bill, promoted by this company, has received the Royal Assent for a subscription of 224,000*l.*: a guarantee of the Great Western of the payment, and 5 per cent. interest, is stated to exist. The shareholders of this and the South Wales Company and landowners' petitions against the bill, and for an investigation into the conduct of the directors, were re-heard before the Standing Orders Committee; but, owing to the defective steps of the South Wales dissentient shareholders, they were not allowed to be heard on the facts they brought forward.

A single piece of china, before it is finished, employs 40 hands, from the man who pounds the flint to the designer and colourer.

LEAD ORES.

Sold at Bagill.

Mines.	*Tons.*	*Price.*	*Purchasers.*
Machynlleth	27	£8 7 0	Mather and Walker.
ditto	11	7 12 6	Walker, Parker, & Co.
Esgnhir	26	8 3 6	Newton, Keates, & Co.
Tal-y-bont	9	8 15 0	ditto
Treddit	5	9 1 0	ditto
Barristown	24	10 0 6	ditto
Shallee	34	11 4 6	Walker, Parker, & Co.
ditto	11	4 6 0	Newton, Keates, & Co.
Foxdale	96	9 1 0	Walker, Parker, & Co.
Total tons		243.	

Sold in London.

Wheal Adams	35	£9 3 0	R. Michell & Son.
Bwlch Consols	60	12 0 6	Newton, Keates, & Co.
Total tons		95.	

Sold at Aberystwith.

East Logylas	65	£9 1 6	Walker, Parker, & Co.
ditto	70	9 1 6	ditto
Total tons		135.	

Sold at the Mine.

East Wheal Rose	100	£10 5 0	R. Michell & Son.
ditto	79	10 4 0	ditto
ditto	72	10 5 6	Newton, Keates, & Co.
Total tons		251.	

COPPER ORES.

Sampled June 28, and Sold at Andrew's Hotel, Redruth, July 13, 1848.

Mines.	*Tons.*	*Price*	*Mines.*	*Tons.*	*Price.*
Carn Brea	132	£3 13 6	West Wh. Treasury	41	£4 2 0
ditto	90	4 2 6	ditto	33	3 19 6
ditto	88	8 13 0	ditto	20	1 10 6
ditto	87	7 7 6	Alfred Consols	65	1 8 0
ditto	85	4 7 0	ditto	51	1 15 6
ditto	84	6 8 0	ditto	40	1 1 6
ditto	83	4 10 0	ditto	33	4 8 0
ditto	80	4 13 6	Wh. Agar	49	3 10 6
ditto	78	4 12 0	ditto	47	2 17 6
ditto	73	3 6 6	Wh. Tremayne	30	1 7 0
ditto	72	7 6 6	ditto	27	5 0 0
ditto	48	4 11 0	ditto	11	6 0 0
ditto	46	0 8 0	ditto	1	17 0 0
Par Consols	94	5 5 6	Wh. Prosper	56	2 0 0
ditto	82	5 10 6	Gwinear Consols	20	5 10 6
ditto	81	5 15 6	ditto	7	11 10 0
ditto	67	7 12 6	Wh. Ayr	22	3 18 6
Levant	67	4 0 6	North Godolphin	21	1 18 6
ditto	63	5 4 0	Michell's Ore	20	2 1 0
ditto	60	6 8 6

NOTICES TO CORRESPONDENTS.

Our next Journal will be on the usual ENLARGED SHEET, in which will be continued the series of papers on Colliery Operations, by Mr. Dunn—on the Metallurgical Treatment of Ores, by Mr. Mitchell—the Letters from Correspondents, omitted in our present No. —and the usual Miscellaneous Scientific Intelligence.

Mr. John Crane's communication shall appear in next week's Journal.

PATENT PNEUMATIC APPARATUS FOR THE WORKING OF MINES, &c.—It is only due to M. Puis, the patentee of the above machinery and apparatus, that we should state we are indebted to that gentleman for the very able illustrations introduced in our last Number, with the description accompanying the same, and have only further to refer our readers to an advertisement emanating from that gentleman, which appears in another column.

"B. B." (Leeds).—We have no recollection of the communication alluded to: will our correspondent oblige us with another copy?

"A Shareholder" (Taunton).—A meeting will be held in London on Thursday next—the proceedings at which will appear in Saturday's Journal.

The letter of "J. B." (Devonport), on the Ashburton Mines, shall appear next week.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, JULY 15, 1848.

The bill (as amended in committee and on report) intituled "An Act to amend the Acts for facilitating the winding-up of the affairs of Joint-Stock Companies unable to meet their pecuniary engagements, and also to facilitate the dissolution and winding-up of Joint-Stock Companies and other partnerships," has passed through committee, and was appointed to be read a third time in the House of Lords last night, when it would be returned to the House of Commons, with the amendments or alterations, previous to its being passed by the Legislature, and, having obtained her MAJESTY's assent, become law.

It was only within 24 hours of going to press that we were enabled to obtain a copy of the amended bill; having, however, in the interim, been honoured by a communication from Lord GRANVILLE, the President of the Board of Trade, which quieted any doubts or fears we might have entertained, but which, we regret to say, on the perusal of the Act, as amended, would lead us to suppose, if our inferences be right, that both Lord GRANVILLE and ourselves were deceived as to the effect of the amendments proposed in committee, which, we have no hesitation in saying, makes the Act even more destructive than before, as regards the mining interests—the Stannaries of Cornwall being excepted.

The second clause of the amended Act runs thus:—"And be it enacted, that all associations, or companies, formed for the purpose of *working mines*, or minerals, and all benefit building societies, other than such as are duly certified and enrolled under the statutes in force respecting such societies, shall be liable to the operations of this Act; provided, nevertheless, that *nothing herein contained shall affect the jurisdiction of the Court of Stannaries in Cornwall*." Now, it will be observed, that the exception of "nevertheless, that nothing herein contained shall affect," applies solely to the mines worked under, or subject to, the jurisdiction of the Stannaries in Cornwall; and this, we can well understand, was ably introduced by Mr. GARDINER and Mr. RICHARD TAYLOR, as officers of the Duchy, regardless of the mining interests generally. But we would ask, what is the inference to be drawn from this amendment in committee of the clause, as brought up by the House of Commons? It is, according to our notions, simply this—that the mines of Cornwall, subject to the Stannaries Court, are exempted from the operations of the Act; while in all other cases it is active, and may be enforced. We have no hesitation in thus advancing our opinion, as to the tendency and inferences to be drawn from the Act; and it behoves those interested in mines in Devonshire, in Wales, in Scotland, Ireland, Derbyshire, or elsewhere, to "look about themselves;" and upon the return of the bill to the Lower House, to prevent the passing of the measure as it at present stands. That some legislative measure becomes indispensable, as regards the working of mines, so as to combine the principles understood as the Cost-book System, with those other regulations which the Legislature might deem prudent, is quite evident; and we believe, that should the present bill pass into a law, or otherwise, that the mining community, or at least those at its head, will introduce a bill early in the next session, having for its object the promotion of mining enterprise, and the security of the adventurers—for, inasmuch that it is desirable such speculations should exist as one of the sources of our national wealth, so is it that laws should exist, and be promulgated, providing not only that the speculation should have due protection, but that those who contribute their funds should also be made safe, and a due protection exist for the interests of creditors.

We have not space, this week, further to enter into the subject, but merely to convey our conviction, that the amendment, while it protects the mines in Cornwall, by the very exception, leaves others more exposed. Having done our duty, we leave to those more intimately interested in the measure to do theirs. This is our counsel—let the words, "provided, nevertheless, that nothing herein contained shall affect the jurisdiction of the Court of Stannaries in Cornwall," be replaced by the words at the conclusion of such amendment, being to leave out "the jurisdiction of the Court of Stannaries in Cornwall," by introducing in their stead "all such mines as may be worked upon the Cost-book System."

In another column will be found a concise report of the proceedings at a meeting of shareholders of the GALVANISED IRON COMPANY. The report of the committee appointed at a former meeting, and the report of the accountant, were presented, showing losses, as appeared by the accounts, of 54,091*l.* 19s. 2d., in addition to any depreciation of the property arising from the altered state of the iron trade. It is hardly necessary to observe, that the proprietors were not prepared for a communication of this nature, or certainly not to the extent; but explanations were given, with the view of justifying the directors in the course they had pursued, and the correctness of the accounts submitted from time to time, and the propriety of declaring dividends at the several periods when such were announced, arising from the then prosperous state of the trade—the late fall in the price of iron from 12*l.* to 6*l.* 10s. per ton being, in itself, an important feature, which should be duly considered in estimating the value of the stocks from time to time. As this company has now been established 10 years, during which period we have seen the original capitals employed in the "Cambrian," "Maesteg," and two or three other companies, whose works are in the same locality, not only expended, but the same fate attending the additional capitals advanced, with little or no returns, we may say a few words as to that under notice, both from the importance to be attached to it as a manufacturing company, and the capital employed. There can be no question that, during the time named, the iron trade has been subjected to more than the ordinary vicissitudes attendant on other manufactures: the extreme variations of prices, the effects of the railway mania, the results attendant on the reaction, the commercial embarrassments, the state of affairs abroad, the want of confidence, all have tended seriously to affect this important branch of our national industry—while the consequence of the highly remunerative prices at one period naturally brought into play many works, and encouraged an outlay which, when it is too late, we find, by experience, was not warranted; it is, however, too late to discover the error, which is too apparent to all when committed, and the results are before us, but which could not be, or was not, foreseen by the most cautious.

We shall confine our observations to one or two of the main features presented, trusting that the result of the report of the committee will be to restore confidence, and place the undertaking in a far different position to that which it holds at the present moment. The company has a nominal capital of half a million—four-fifths of which, or thereabouts, have been paid up, divided into 50,000 shares. The works possessed by the company consist of 10 blast-furnaces in Wales and Staffordshire, three extensive mills and forges, and the works for the galvanised process in London, Birmingham, and near Dudley: the capability of the works for smelting is equal to 1200 to 1500 tons weekly; and the galvanising and other works are on a correspondent scale, and embracing every branch of the iron trade. The following is the cost of the several works, as appears by a statement now before us:—Corbyn's Hall and Darlaston Green Iron-Works and Collieries, near Dudley, four furnaces, with mill and forge, 71,374*l.* 6s. 10d.; Phœnix Works, West Bromwich, where mills and forges are erected, 46,296*l.* 0s. 10d.—making in Staffordshire alone an expenditure of 117,670*l.* 7s. 8d. Cefn Cwse, in Wales, where there are three blast-furnaces, in addition to the collieries held by the company, 141,228*l.* 16s. 1d.; Garth, in the same principality, where there are also three furnaces and collieries, 56,269*l.* 10s. 4d.—or, together, 197,598*l.* 6s. 5d.; in addition to which there has been expended on the galvanising works at the three places referred to, 15,198*l.* 2s. 7d.—making, in all, an outlay on the works of 330,466*l.* 16s. 8d.; in addition to which, it appears, that the present stocks, book debts, cash, and bills, at this moment, are estimated at 92,658*l.* 7s. 9d.—making, 423,125*l.* 4s. 5d., as representing the capital and profits realised, after deducting the losses sustained and dividends paid during the period.

It is, of course, only natural to suppose, that during the present depressed state of the iron trade, the value of the plant must be considerably deteriorated, as compared to the value which would be affixed in those palmy days to which we have referred, and which may, and, as we trust, will, yet return; and hence it is hard to fix a value on works which may, in a few months, be enhanced some 20 or 25 per cent. in value; or, in case of a further depression in the iron trade, may suffer a further decline. It is only right that this view should be taken of things, as it would be absurd to apply any such reasoning, or argument, as affects the value, or cost, of railway undertakings, if we are to determine them by the low prices of shares, arising from circumstances in the commercial world totally irrespective of railway enterprise or undertakings. We augur better times are at hand, but it cannot be expected we should at once recover from the position to which we have been reduced; while iron, as a staple commodity, and the galvanising process not only being well established, but daily progressing, we may reckon on the company again being re-established in public estimation, and restoring confidence to its numerous proprietors.

It would be no very easy task to lay one's hand on two countries of such unbounded opulency in mineral treasures, and yet have contributed so little to the world's stock of that particular description of wealth, as the United States, in the New Continent, and Spain in the Old. We excuse our brethren by genealogy, on the western side of the Atlantic, for not having done more in this particular direction—they have had plenty of work of another kind to occupy their attention. It is something to have founded a prosperous commonwealth in the wilderness—to have raised with their own hands, and by their own exertions, a fabric of liberty and commerce, equal to anything the world has seen in her ancient, her middle, or her modern ages. As to Spain below the Pyrenees, the kingdoms of Castile and Leon, she has done next to nothing, compared with what she might have done, from sheer supineness and inattention. In respect of *mines* and *minerals*, her wealth is to this day unprobed—her resources are unassayed; and until civil dissensions are exchanged for civil concord, and the intrigues of cabinets have given place to the arts of commerce—until, in fact, internal peace and the authority of law have received a more perfect organisation—neither her mines, nor her vineyards, nor any other of her pregnant elements of prosperity, will yield to Spain a half of her wealth, or bestow on her people a half of their teeming national advantages. But we do regard Spain in Europe, and some of the states of the American Union, as among the most promising areas in the world for the production of mining wealth and the progress of mining activity—of course, we speak of the United States, as they have been known to Europe for about the last century, and without reference to their recent raid into Mexico. They are alike, therefore, in some of the elements of their material condition; but in the features, political and moral, of the two communities, there is the greatest possible dissimilarity. The press of Madrid bestows a just eulogy on the honour, the industry, and the general success of the British Government and people; but the press of our American descendants is redolent of the choicest terms of contumely, as applied to this nation. It seems always most happy when most calumniating those from whom the people of the States trace their natural origin, and to whom they are indebted for the free spirit of their institutions. Ingratitude is a vice which all the world over, and in every age, has been charged against republics; and the ingratitude of our children of the New Continent confirms the truth of the imputation.

It is with no little satisfaction that we see the public is at length on the point of receiving, from the hands of a provident Legislature, a sound and salutary Health of Towns Bill. The difficulty of comprehending and guarding, in one great measure, the multitude of individual and local interests—not to say the greater multitude of prejudices, which it was necessary to conciliate—will account for the delay of this bill, as well as for the scantiness and the insufficiency of some of its provisions. It is, however, now on the point of receiving its Parliamentary consummation; and, although there may be defects in some of the timbers, and that, here and there, her seagoing qualifications may seem less unexceptionable than could be desired, still we think the vessel will come out of hand, on the whole, as well built, and as justly proportioned, as any craft which, for some time past, has been launched into the political sea, from the same slips. We think, also, that the particular method in which it is intended to deal with the future stages of the bill, in the House of Lords, will facilitate its passage through that House, as well as add to its vigorous efficiency, when perfected into a law. A committee of half-a-dozen men, acquainted with the subject, will do more to prune off the excrescences, and give precision to the enactments of a public measure, than a house full of critics, rhetoricians, and debaters, is in any case, likely to do. When the general principles, and the prominent features, of a law are agreed upon, the last manipulations, and the ultimate finish, may be advantageously left to a quorum of cool and energetic men of business. In such hands the Health of Towns Bill is now deposited; and we expect that, in a few weeks at furthest, it will be known and felt as an operative measure. After that, stand by, say we, some of the large corporations, with whose uncleanness the bill does not meddle—the days of their purification, also, is at hand. It would be, of all things, nugatory and inconsistent that, with one hand we should continue to endow, to enlarge, and to enrich hospitals, and similar foundations, wherever our population is heaped together in masses, for the amelioration and abatement of disease, while, with the other hand, we cover and encourage the growth of those causes which have made our own large towns a sub-soil and a seed-plot for the propagation of that very class of evils, of which, by an opposite process, we are endeavouring to accomplish the suppression and the removal.

THE IRON TRADE AND RAILWAY SYSTEM.

[FROM A CORRESPONDENT.]

Your remarks last week upon the prospects of the iron trade appear to prove conclusively the present depression to be but a temporary one, arising from the cause suggested in that article—namely, the deferring of orders for ironwork and rails by the railway companies, in consequence of the late scarcity of money. Indeed, no man who knows the enormous length of railways now in the course of construction, as well in America and on the continent as here, can for a moment doubt that a period of high prices of iron must shortly ensue—such as has never yet been exhibited in the annals of the trade. Having paid some attention to railways and the iron trade, perhaps the following statement of the make of iron, the number of railways in the course of construction, and the conclusions drawn from them, may not be uninteresting to parties connected either with railways, the iron trade, or the money interest—as all of these interests are greatly concerned in the development and solution of that wonderful question of social economy—the progress and completion of the railway system. The make of iron, as given by Mr. M'Culloch, in his last edition, published in 1847, was in—

1840	1,396,400 tons.
1843	1,300,000 „

Since that time no returns are made up, though, beyond question, the make at present is something over the largest of those two periods—averaging, I should say, about 1,500,000 tons per annum. From 1830 to 1840 was a period of great prosperity in the iron trade, during which the make increased in a very rapid ratio (the exact figures may be found in the above author); and from 1840 to 1842 was a period of depression, when the make fell off as above shown, though not to the extent (considering the preceding rapid rise) that might fairly have been anticipated—showing that the increased make was not, even with no extraordinary demand, much above the wants of the country; as, though some stocks were accumulated, the amount, comparatively, was not large—iron being too costly an article to be accumulated in very large quantities. The impetus to the trade in 1843 and 1844 was given by the Railway Acts passed in those years, and continued, without much variation, until the orders for rails were discontinued, at the latter end of last year, owing to the tightness of money; the railways only being able to extract from the grudging public sums immediately required for their first wants—namely, earthwork and formation. That the orders for rails were only delayed, must be evident at once from the returns furnished by you last week; and which, as they are all important to the question, I shall set forth a little more at large.

The railways completed in 1843, by returns compiled by order of Parliament in 1845, were as follows:—

	Miles.	Amt. of capital.	Average per mile.
Great Britain	2069½	£64,238,630	£31,048
Belgium	343	5,872,160	17,120
France	552	10,276,000	18,617
Germany	1997½	15,500,000	7,500
America	3688	17,702,400	4,800
Total	8650	£113,589,160	£13,131

And, by the same returns, the railways constructing abroad in 1845 were:—

	Miles.	Capital.
France	2410	£44,866,970
Germany	2347½	18,000,000
America	5624	26,995,200
Total	10,381½	£89,862,170

From the above returns, Sir Robert Peel's celebrated speech on the railway system, delivered in Parliament, April 23, 1846, reported in the papers the next day, and in Hansard, and by Parliamentary returns issued at the latter end of the session of 1846, the following are the number of railways for which Acts have been passed in this country, from 1843 to the end of the session of 1846:—

	No. of railways.	Capital.	Length in miles.
1844	37	£17,987,000	3543
1845	118	60,484,000	
1846 In shares		£145,832,405	179,243,486	5974½
1846 To be borrowed		33,411,081	
Total		£257,714,486	9517½

In addition to these, many railways are authorised and constructing abroad, in Russia, Italy, &c.; and in the session 1847 a considerable number of Railway Acts were obtained for railways and branches here, the returns for which I have not at the moment before me. It, therefore, appears from these returns that there were, in 1845, 10,381½ miles of railways actually in course of construction in America and on the continent; and that there have passed since 1843, Acts in this country for no less than 9517 miles of railway, involving the enormous capital of 257,714,486*l.* sterling, and an amount of iron (calculating that each mile of railway requires 500, and, I believe, the real quantity required is nearer 600 tons) of no less a quantity than 4,758,500 tons.

A curious inquiry now remains as to the means we have at command to meet this extraordinary demand for gold and iron, which even now casts before the shadow of its coming magnitude; and, before touching upon this part of the subject, I cannot refrain from paying a well-deserved tribute to that most able of papers—*The Times*—which, when all others had run mad in the railway mania of 1845-46, alone stood forth alike from Parliament (the legitimate guide of the public), and the public itself, and denounced the mischief of such an inflated speculation with a withering force, which sheared it of its more dangerous proportions, and saved hundreds of thousands from the utter destitution in which the insane bubble would have inevitably involved them.

The calls during the last year, and this up to the present time, for English railways alone, have averaged more than 3,000,000*l.* a month—the total calls for the first six months of 1847 being 23,032,200*l.*; and for the first six months of this year, 19,913,872*l.*—(see the totals in the "Weekly Share List," and in *The Times*, of July 1, 1848)—consequently, the public is now expending about 40,000,000*l.* a year in railways, and will, if this be continued, complete the whole of the lines authorised, since 1843, in about five years from the present time; and, looking upon the pressure upon the money market which has been present during the time these calls have been made, I think, if the railways are content to proceed at that rate, that the means of the country are sufficient, in a pecuniary point of view, to complete the host of railways now being constructed, without any serious pressure upon the trading interest; and, if rails were ordered, *pari passu*, with the amount expended per annum, it would, I consider, be possible for the ironmasters to supply the rails required in this gradual proportion—because, taking the average cost of railways at 30,000*l.* per mile, 40,000,000*l.* (the expenditure of each year) would complete 1330 miles, requiring, at 500 tons per mile, 666,500 tons of iron per annum. Now this, although a very large demand, additional to the ordinary demand, might perhaps, by great exertions on the part of the ironmasters, be supplied in due course, as the high prices, which must follow even a demand of this extent, would stimulate them to the utmost. If, however, instead of the orders for iron-work keeping pace with the rest of the outlay, they be left to the last moment, we shall then have a demand for 4,758,500 tons of iron—being the total amount required—pressing upon the market nearly at the same time. It would be utterly impossible to meet such a demand; for, if the whole of the make of the kingdom were applied to railways alone, it would take above three years to meet their requirements.

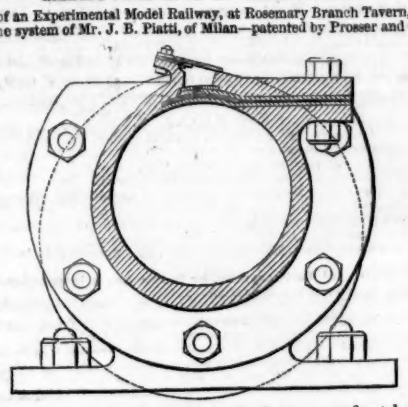
There is no remedy by an increased make; for it is impossible suddenly much to extend it, as the labour employed in mining and iron-works is skilled labour, which cannot be rapidly augmented, and the higher the wages the less iron is turned out by the same number of hands, as the men become almost masters; and, instead of working steadily as they do when wages are low, they devote two, and sometimes three, days a week to idleness and dissipation; neither is there a remedy to be looked to from abroad, as the foreign railways depend, in a considerable measure, upon English iron for their completion, no other country being in a condition to offer them a supply of any moment.

If, therefore, there is any dependence whatever to be placed upon facts and figures, it follows, that at the rate at which the railways are even at present proceeding, the time must come when (if orders be delayed) much more iron will be required than can possibly be supplied. Whether the approach of that period be immediate, or remote, will depend upon the discretion of the railway people in ordering, or not ordering, their rails in proper time; anyway, however, as many lines must be, from time to time, completed, ready for the permanent way, it is certain the present low prices

cannot continue long. A state of matters of this sort soon cures itself by stimulating demand. Even already the signs of improvement are abroad; foreign orders (American and Russian) are increasing; the fear is not that things will not revive, but that they will revive too fast, and give birth to speculation. If that can be avoided, and the railway calls confined to the present dimensions, the next 10 years of the iron trade will tell a tale of prosperity, little dreamt of at the present moment.

IMPROVEMENTS IN RAILWAYS.

Description of an Experimental Model Railway, at Rosemary Branch Tavern, near Peckham, on the system of Mr. J. B. Piatti, of Milan—patented by Prosser and Carcano.



A reservoir is filled with compressed air, by means of a 4-horse Cambrian steam-engine—a communication between the reservoir and traction tube is maintained by a pipe, and the supply of air regulated by a cock. The line of rails, which are 18 inches apart, is 150 yards long—50 thereof being on an incline of 1 in 30; a traction tube is placed between the rails of 2¼-inch bore, giving an area of a trifle less than 4 inches. On the piston being inserted in this tube, and the coulter attached to the carriage, which, with its load, weighs 1 ton, compressed air, of about 30 lbs. pressure, is admitted, and allowed to exercise its force for only 47 or 48 yards —this gives sufficient momentum for the carriage to travel over the remaining line of about 53 yards on a level, and nearly 50 more on the inclined plane. This system is based on the power of compressed air acting on a piston, travelling in a series of longitudinal iron tubes, fixed between the usual iron rails. The upper side of the tube has, in its whole length, a slot, or aperture. The tube is furnished with a longitudinal vulcanised India rubber valve, which, shutting from within, closes the above slot. The piston has a vertical coulter, which, passing through the slot, is attached to the first carriage of the train.

At the commencement of, and at convenient distances on, a line of railway would be reservoirs, filled with compressed air by means of small steam-engines, constantly at work, or by water-power, when advantageously to be obtained. To set the train in motion, the piston is inserted in the traction pipe, and the coulter attached to the first carriage; compressed air is then admitted from the reservoir into the traction pipe, and, acting behind the piston, imparts a velocity according to the power employed, hermetically closing the longitudinal valve the moment the piston has passed. The compressed air can easily be continued of the same force the whole of the course; the cocks of the reservoirs on the line may be worked by the train itself as it passes. The tube, at several sections, according to the number of the reservoirs, has within it transverse valves, to stay the passage of the compressed air; suspend its action on the piston when nearing a station, and to maintain and determine the communication from one tube to the other; and in crossing the road numerous advantages are possessed by the atmospheric vacuum railways over the locomotive—viz.: immense saving in cost of construction of the line and maintenance thereof —impossibility of collision—of trains taking fire, or of running off the rails—facility of travelling up steeper inclines, and on curves of very small radius—the direct application of the motive-power on the load itself, instead of its being, in a great measure, absorbed by the locomotive engine and tender, and the consequent ability of drawing 20 tons more goods every journey, from the absence of the locomotive and tender, usually of that weight. Mr. Piatti's system has all the above, as also the following advantages over the vacuum:—

1. Perfect closing of the longitudinal valve, which prevents any escape of air and loss of power.
2. Uniformity of diameter of traction tubes at all acclivities.
3. Facility of increasing or diminishing the propelling power, according to the weight of the train.
4. Facility of augmenting the speed of the train.
5. Facility of surmounting steeper inclines.
6. Regularity and precision in the service of the trains.
7. Saving by the engines and air-pumps being considerably less, and constantly at work.
8. Economy of about 20 per cent. in construction of the line.
9. Economy of about 25 per cent. in its maintenance.

COMPARISON BETWEEN

The Vacuum System.	*Mr. Piatti's Compressed Air.*
1. The longitudinal valve, shutting on the outside of the tube, and having a pressure of only from 2 to 10 lbs. on the square inch, cannot shut close—consequently much air gets in, and a considerable portion of the vacuum is destroyed, and the propelling power lost.	1. The longitudinal valve shuts within the tube, and no air can escape, as the pressure from the compressed air within the tube—of at least 30 lbs. to the square inch —must close the valve hermetically, and prevent any loss of propelling power.
2, 3, 4, and 5. As the power resulting from the pressure of the atmospheric or external air (about 8 lbs. on the square inch) on the surface of the piston, cannot be increased, it will be necessary to change the ordinary tubes, and replace them by much larger pipes and pistons, whenever an increase of power is required for heavier trains than ordinary, steeper inclines, or increased velocity.	2, 3, 4, and 5. To accomplish the same objects, no change of tubes or pistons is requisite; it is only necessary to increase the force of the compressed air, which can be done to an almost unlimited extent. It can also be diminished at pleasure, by admitting smaller quantities through the cocks, which the train itself regulates in its passage.
6. The closing of the longitudinal valve being very faulty, a decrease in velocity of the train frequently occurs, and sometimes a total stoppage.	6. These inconveniences cannot arise, as the valve shuts perfectly close.
7. Large air-pumps are required to be worked by very powerful steam-engines, because the action of the pumps being intermittant, they are inactive nearly two-thirds of the time. Much loss of motive-power also takes place, from the imperfect closing of the longitudinal valve, which admits the external air, and diminishes the vacuum in the tubes.	7. Much smaller pumps and steam-engines are required, as their action is continuous, and no escape of air can take place, as the longitudinal valve is hermetically closed.
8. This system requires the road to be more levelled than that for compressed air, as also a variety of tubes and pistons, from a diameter of 15 inches upwards.	8. Saving of 20 per cent. in construction of road—much steeper inclines being surmountable, owing to the great increase of power which can be employed, and also in this system being only about 8 inches in diameter. Although the traction pipes sustain a much greater pressure than those of the vacuum system, they need not be stouter, as their smallness makes them more solid. The cost of the reservoirs is nothing in comparison to the other advantages over the vacuum system.
9. Repairs of road from embankments, cuttings, &c., to make it more level; also repair of large pipes, pistons, and complicated apparatus to valve, &c., make the working expenses high.	9. Saving of about 25 per cent. in working expenses, from fewer embankments, cuttings, &c., from the simplicity of the internal longitudinal valve, and from the traction tubes being half the size.

Comparison between the Expenses of Establishment, and Working of the Three Systems of Railroad Traction.

Locomotive Establishment.		*Vacuum System*		*Compressed Air.*	
In five of the principal railways, the cost for making road, rails, &c., exceeded 36,000*l.* per mile, to which add first expense of locomotive, 1600*l.*, the amount is 37,600*l.*; presuming, however, that at present the same may be effected at considerably less, we will take as cost p. mile	£30,000	Construction of road Rails, &c., and laying down	£6000 3000	Construction of road Rails, &c., laid down	£5000 3000
		Traction tubes and pistons laid down	6000	Traction tube, valves, piston, &c. &c., laid down	4500
		Steam-engines, air-pumps, and engine-houses	1500	Steam-engine, air-pumps, and engine-houses Reservoirs	800 200
			£16,500		£13,500
Expense of Working.		*Expense of Working.*		*Expense of Working.*	
5 per cent. on first outlay	£1500	5 per cent. on first outlay	£ 825	5 per cent. on first outlay	£675
Repair of road	450	Repair of road	300	Repair of road	250
Coal and repair of engines	1840	Repair of engines, valves, piston, &c., and coals	750	Repair of engines, valves, piston, &c., and coals	400
		Sundries	300	Sundries	200
	£3790		£2175		£1525

Original Correspondence.

COPPER SHEATHING: No. II.—TO THE SMELTER.

Sir,—It is rather disappointing that an inquiry, interesting to so many classes of your readers, should have elicited no reply, or public notice, from any of them, since it is upon facts, and the observations of practical men, collected, arranged, compared, and systemised, that we must construct theories, and prove them, before applying them to correction or improvement; and the opportunities of merchant ships, for such observations, being more diversified than those of the Royal Navy, these are the more desirable to be collected. But no prospect appearing, of advantage from longer waiting, I proceed to reason chiefly on the information obtained from the Navy—what I have privately collected, from merchant sources, being hardly consistent enough to lay much stress upon. In this letter, addressed to the smelter, my inferences will be given in the interrogatory form—not only because laboratory men, reasoning from the known laws of Nature, have yet many such laws to learn, as well as many modifying circumstances in the working practice, but yet more for the purpose of eliciting the information and opinions of practical smelters.

Although copper sheathing has not yet been 90 years in use (having been first adopted in the Navy in 1761), complaints of its deterioration began within 40 years—*i. e.*, about 1800—when Lord St. Vincent, amongst others, observed increasing sea wear; and these complaints have been multiplying from time to time, as though the sheathing had been getting gradually worse; but they have been much increased since about 1832, several cases being recorded of sheathing, made since that year, having worn through, within 12 months, while lying at anchor, or in ordinary. Difficult as it is to believe, that copper smelting should have been steadily growing worse from the period of its first introduction as sheathing; yet, on the other hand, there are too many cases, reported by too competent observers to admit of a doubt, that there has been, and is, increased waste, whether due to intrinsic change in the metal, or to the conditions of its application and use. Of such conditions a summary was given in my first; and they may be seen, considered more fully, in a paper of mine, at the British Association, reported in the *Athenæum* for 1841. The present letter will relate to the qualities of the copper itself. The first question seems to be, whether the best, purest, and toughest copper, is the fittest for sheathing? If durability *alone* were the object, it certainly is not so—some hard alloys being proved more capable of resisting sea wear than the pure metal. But it has also turned out, that some of these, like the sheathing under Sir H. Davy's protectors, have quickly become crusted and foul with weeds and shells, so as to hinder the vessel's sailing, which can hardly occur while the sheathing wears quickly away. The nice point is, then, to attain a metal which will keep itself clean, without yielding much to the mechanical and chemical actions of the sea. But of increased tendencies to foulness we hear no complaint, and ships probably make much quicker voyages than they did 30 years ago; our attention may, therefore, be mainly directed to the subject of waste—only bearing in mind, that it must not be remedied at the cost of tendency to foulness, in which exclusion lies the difficulty. That great changes have taken place in the copper smelting process, is testified by the large reduction in the smelting charge, in reckoning the standard; and it would not be extraordinary if this great reduction in cost should have been attended with a corresponding lowering of quality; and the ore slags being worked cleaner, more of the contaminating matters may also be extracted. But, on the other hand, chemical analysis has so far failed, both in this country and others, to detect any consistent specific difference between the best wearing old sheathing and the most perishable of recent manufacture; and, indeed, neither in former times, nor at present, have different smelters followed exactly the same course of operations—so that difference in the products should not be a mere question of time on this ground alone. There is, however, an unity of principle in the process; and our present business is to trace up this principle, and inquire what changes may be theoretically expected to have taken place in the products by those in the course of operations.

These we may regard as consisting of—1. Due mixture of different ores to ease the working.—2. Calcination of the mixture, and melting out the regule from the slag.—3. A series of calcinations and fusions, to scorify the iron and strange metals, and leave the copper in a state of sulphuret. —4. A further calcination and fusion, in which the copper is reduced to a coarse metallic state; still, however, contaminated with sulphur and strange metals—and 5. By a long roasting of this coarse copper, to work off the sulphur; and a long fusion of this roasted metal, in contact with air, to scorify the strange metals; and then, under charcoal, to burn out the oxygen absorbed.

1. *Mixture of Ores.*—These are selected to help one another in calcination and fusion, so as to produce the cleanest slag at the least cost, and to give a regule, which goes readily and orderly through the course of operations, and refines soft and tough with the least waste and trouble. Are not these mixtures generally regulated rather by practical and impirical rules, than by the chemical composition of the ores?—and must they not have been modified to suit the richer American ores when these were introduced? From which period some of the best informed persons date the most rapid sea waste in the sheathing. On this step of the process, then, arises the important inquiry, whether the product may have been injured by the altered mixture of ores to suit the foreign?—by the contents of the foreign ores, which are said to give particularly soft copper?—or by the greater facility of producing soft metal, encouraging less caution and pains in the smelting and refining processes? Chemical analyses* have failed, as before said, to discover any specific inferiority in the modern metal; and the most obvious method of ascertaining the point chemically, by comparative analyses of a series of refinery slags of different periods, may be now impracticable, from the difficulty of obtaining them of sure dates; and how far the very softness of the recent copper may weaken its resistance to sea wear, is a further question much in point.

2. *Ore: Calcination and Fusion.*—To consider the ancient practice of calcination in bulk would probably be unavailing, as the smelter will hardly be induced to return to that, unless for the sake of the sulphur and sulphurous acid obtainable. It may be just noticed, that the great length of time it was in hand, with thorough penetration of the whole by half-burnt air, was very favourable to complete oxidation— at least, of the more oxidable metals—and, therefore, likely to bring out a purer regule, but to leave a fouler slag, as will be explained under the following head; but it may be questioned whether the present cleanness of ore slag is not attained at the risk at least of a fouler regule.

3. *The Regule; its successive Calcinations and Fusions.*—The regule, freed from the earthy and stony ore slag, is again calcined, by which the surfaces are oxidised to a greater or less depth, and, so far, the sulphur burnt out. This mixture of sulphuret with oxide separates when melted, the oxide floating as slag upon the sulphuret.† At the surface of contact of these two layers, a mutual reaction takes place; the joint affinities of copper for sulphur and iron for oxygen being more powerful than the converse affinities of iron for sulphur and copper for oxygen; the oxidated copper in the scoria, or slag, coming into contact with the iron sulphuret yet remaining unoxidised in the regule, exchanges with it the oxygen for sulphur, forming oxide of iron, which rises into the slag, and sulphuret of copper, which sinks into the regule, until this reaction is checked, by the influence of mass or proportion.‡ It may be continued by keeping up the fire, and further oxidising the slag, but answers best to run off the slag at a certain point, and granulate the regule for further calcination. Now, on considering the influence of mass, or proportions, in the reactions of compound affinity, it will appear that the more often (in moderation) these calcinations and fusions are repeated, and the irony slag thus separated from the coppery regule, the more complete should be the separation between the iron and oxidable metals and the sulphuret of copper; but, of course, at the expense of more fire and time; and I apprehend one of the principal changes in modern smelting to have been a gradual diminution of the number of these repetitions. Does not practice confirm this theory; and are not smelters satisfied with a more impure "fine metal" than formerly?—leaving more to be done in the higher steps of the process. I would here particularly direct the reader's attention to the note on the "influence of mass," as bearing on the inquiry throughout.

4. The regule being thus reduced to minimum of sulphur, undergoes another calcination, in which most of the remaining sulphur is burnt off, and oxygen enough absorbed to slag off the greater part of the strange metals, and a good deal of oxide of copper with them. The melted produce of this calcination is no longer a regule, but an impure metallic substance, contaminated with the residues of the lower metals, and still a little sulphur, named, at the copper works, "coarse copper;" it is generally porous and submalleable, but differs considerably in quality in the different smelting-houses, and the finer it is the less inferior metals will go into the refining furnace, which, by the influence of proportion, before noticed, should favour the purity of the product, unless special means are employed to extract them. This "coarse copper" is not granulated for calcination, but cast in ingots or pigs for *roasting*.

These pigs, kept at a red heat, whilst the oxygen of the air penetrates the whole mass, and burns out the sulphur, are then gradually brought into a state of fusion. The melted copper works, or boils, by the emission of bubbles of sulphurous acid, and is allowed to absorb more oxygen, until these bubbles have ceased, and it becomes so much impregnated with suboxide, as to have a bright red colour on cooling; and since it may be inferred, that the copper itself cannot be so far oxidised, until the inferior metals are scorified entirely; it is then considered fine. The scoriæ are skimmed off (sometimes added by the addition of lead), and the copper deoxidised by covering the surface with charcoal, and agitating it by plunging in a pole of green wood; and the metal becomes soft and tough when the oxygen is thus exactly extracted, but brittle again if the poling is continued too long. This effect of "overpoling" Mr. Vivian attributed by analogy to absorption of carbon, as in the case of soft and cast-iron; but I have not found carbon in any sample of overpoled copper.§ If, therefore, not due to the reduction and reabsorption of a little slag, may it not be produced by hydrogen or ammonium, copper being known to absorb both nitrogen and hydrogen.

In the refining process I have not traced up any other change than the above-mentioned, of laying in the "coarse copper" at inferior degrees of purity, and at a lower "pitch" of desulphuration. Theoretically, the "influence of proportion" should render the refining more precarious, or at least more difficult, if it did not impair the quality of the product, which, as before repeated, analyses have not hitherto detected; and sulphur I have also failed to discover in even the worst samples of sheathing.‖ But how far does practice bear out this theory? Does not the refining furnace do its work the better the less it has to do—that is, the purer the coarse metal laid in, and the higher its pitch of desulphuration? And is not copper, refined from select coarse metal, tougher, especially in sheet brass, the closest test? I have heard the recent sheathing complained of as less smooth and compact on the surface than the old, and have, on some occasions, found the densest and heaviest sheathing the best. Is this defect chargeable to the quality of the copper; to the management of the rolling; or to the nature of the pickle? In some old accounts, urine is mentioned as the pickle, which would have been alkaline; but the present pickle is, so far as I know, invariably acid. There are probably other changes (beside the various patents for precipitation, &c.,) which have not reached this remote corner; and the communication of which, through your columns, would enable us to reason upon them, with a view to improvement or correction.

These inquiries are designed to lead less directly than secondarily, by reflection and discussion, to the correction of any fault in the processes or products, and especially to the adaption of different qualities of copper to the purposes they best suit; and with respect to sheathing, especially to the resolution of the problem—how far great purity and softness are objectionable; and, if so, what alloys answer better? and how such metal is most readily and cheaply produced? For these objects the facts must come from the working smelter and consumer; it will be for chemistry to supply the reasoning and suggest the improvement. J. Prideaux.

Plymouth, July 11.

CAST-STEEL.

Sir,—As "Ferreus" appears incapable of viewing a subject of discussion in all its varied bearings, it is somewhat difficult to reply to his heterogeneous mass of disconnected observations, as embodied in his letter of the 4th July, so as to adapt the answer to the peculiar—not to say, very limited—scope of his ideas.

I attribute cellularity of surface, as exhibited in cast-steel and cast-iron, whatever may be their qualities, to the presence of iron in its most infusible state—*i. e.*, pure iron combined with a minute dose of carbon; or, in common parlance, malleable iron: and I have repeatedly proved, by actual experiment, that malleable iron possesses, at temperatures beyond a full red heat, a specific gravity less than that of ordinary cast-iron; and, therefore, when mixed with fluid cast-iron, either in the spongiform state which it exhibits when softening preparatory to fusion, in the viscid or semifluid state which characterises its imperfect fusion, or in the state of extreme division and fluidity which it acquires at a temperature sufficiently intense, malleable iron, in each of these conditions, has a tendency to rise towards the surface of the melted iron; and the malleable particles are, therefore, aggregated towards the upper surfaces of pigs of cast or refined metal. To the question, "who has seen them?" I reply by asking another question—Who at any time has seen the particles of carbonic acid, in a mixture of that acid with common atmospheric air, formed by pouring carbonic acid into a bottle filled with common air? Now, no one doubts the presence of these particles, though they are invisible; and, shake the bottle as you will, the lighter particles of the air will be found to tend to the surface; simply because the mixture of oxygen and nitrogen, called air, is lighter than the mixture of oxygen and carbon, called carbonic acid. In the like manner, the alloy of carbon and iron, called malleable iron, is, in its fluid state, lighter than the alloy of carbon and iron, called cast, or refined, metal; and the former alloy tends, therefore, in mixture to float to the surface of the latter. Why malleable iron, in a state of fusion, more or less perfect, should expand so as to become of a lesser specific gravity than cast-iron, I cannot explain; but experiment has shown me, that when fluid malleable iron is cooled down, the expansion is at a maximum at that degree of temperature when the fluid metal begins to pass into a solid state. The well-known phenomenon of the expansion of water, when passing into the solid state, by a reduction of temperature, is analogous to that which I have cited in reference to malleable iron; like that also, the latter phenomenon has not hitherto been accounted for. In white pig-iron, the fusible pure iron is in mixture with the carbonated iron; and, as is usual with homogeneous liquid mixtures, the particles are invisible, even to a *microscopic eye*—yet there they are. When refined iron is not highly blown, very little of the charge is decarbonated, so as to form malleable iron; hence it exhibits very little cellularity, and sometimes not any.

When high blown, much of the refining charge is malleabilised, and honeycombs appear on the surface, just in proportion to the extent of the decarbonisation.

If "Ferreus" will take a hammer, with a well-hardened steel face, and strike the surface of a pig of high-blown metal, the hammer will indent that surface. Let him now turn the piece of metal over, and strike the under side, and he will find that the hammer face, and not the metal, has been indented. How does he account for this, except from the fact of the malleable particles of iron being aggregated at the surface of the refined metal? I do not know what *hyperborean manipulation* may signify, nor have I alluded to the fusion of platinum, which is, however, a matter of no difficulty in an air-furnace, supplied with *heated air*; but as I had the advantage, for many years, of benefitting by the comprehensive living experience of my late father, I do not, at this late period, require to study his writings: as, however, the experiment which I detailed in my former letter was taken *verbatim* from vol. xiii. p. 192, of my father's manuscript works, as set down by him in the year 1827, I am a little surprised that so acute a discriminator as my friend "Ferreus," should have involved himself in the absurd dilemma of taxing me with inventing an experiment recorded by my father 21 years ago, *the scrupulous exactitude of whose details leave on the mind a perfect sense of the trustworthiness of the writer, and that the experiments narrated were really performed*; and finding fault

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* Of these analyses I hope to send you a table on a future occasion, if this discussion is taken up in earnest by practical men.

† The question needs not here be complicated with the consideration of the higher slags thrown back.

‡ The "*influence of mass*" may be most simply understood as follows:—When three substances are present, C., S., and I. (copper, sulphur, and iron), supposing C. to have the stronger affinity for S., C. and S. should combine and leave I. free; but as I. has some affinity for S., it will still hold a portion of it, determined by the quantity of I. present—a large quantity compensating in a certain degree for an inferior attractive force; so, when C. O. (oxide of copper), and I. S. (sulphuret of iron) are in contact, the C. would take the S., and the I. the O., producing C. S. and I. O.; but this decomposition will be limited by the proportion of the respective elements present. If the I. S. be in great excess, the slag will be clean, but much I. left in the regule; and a great excess of I., even already combined with O., will hinder the decomposition of I. S., and thus leave the more of it in the regule—hence, the oftener the I. O. is slagged off in small quantities, the more perfect the decomposition, the purer the regule, and the cleaner the slag, and so with the other contaminating metals. *This law, which is a practical fact, though rather more complex in theory than above stated, applies to every part of the process of copper smelting.*

§ Nitric acid leaves no distinguishing black spot; nor dissolved in muriatic acid, by aid of chlorate of potash, does such copper deposit any carbon, or give the smallest bubble of gas.

‖ Probably, by adding nitrate of barytes to the acid, *before* dissolving the copper, to catch the sulphuric acid nascent, and even induce its formation, by "disposing affinity," rather than sulphurous, which *may* escape, more minute portions of sulphur may be detected.

with this very style of exactitude, when transferred from a manuscript book to a printed paper. As Minerva started forth, clad in complete armour, we may conclude, that there was much subsequent noise and emptiness, in reference respectively to the steel-dight bantling and to the head of Jove; so, when an idea bursts from the brain of my metalliferous opponent, there is *sound* without sense in the progeny, and emptiness in its paternal head.

Air-furnaces are supplied with oxygen from atmospheric air passing in through the bars of the grate. The zone of greatest temperature is determined by the velocity with which the air rushes in through the bars, and this velocity is a function of several variable quantities—viz.: the area of the spaces between the bars, the amount of ignited surface, the area of the furnace and flue, and, in particular, the height of the chimney. In an ordinary steel furnace, the zone of the highest temperature is about 3½ to 4 inches above the bars, or circumjacent to the bottom, and not to the sides, of the crucible. In the furnace of "Ferreus," which is, I fear, a creature of the brain, the process is inverted—the oxygen, I presume, kindly refusing to combine with the ignited carbon next the bars, and considerately passing upwards, so as to generate the maximum heat at the sides of the crucible—perhaps a foot above the bars. "Ferreus" appears to be ignorant of two metallurgical facts, which are, however, well established, and may be confirmed by any experimentalist.

The first is this—that iron cannot absorb any additional dose of carbon after it has entered into fusion. The second fact is—that the addition of ½ per cent. of carbon to a given quantity of bar-iron, renders it infusible at a temperature which would readily liquify the bar-iron, *per se*; whilst a still greater alloy of carbon again induces fusibility.

"Ferreus" asks—"Cannot there be found in white iron that very slight amount of carbon which characterises malleable iron? I reply, there can; but, in its state of fusion, the pure iron, alloyed with the various species of carbonated iron, to form white cast-iron, cannot absorb one particle of carbon from the carbonated iron, except at a temperature which shall admit of cementation taking place, and which is always lower than the temperature of fusion.

Thus, when pig-iron is verging upon white, and contains a large alloy of pure iron, when allowed to cool slowly, an internal cementation passes amongst its particles, commencing as soon as the metal has ceased to be fluid, and the fracture, when cold, will be light or pale gray; but, if cooled at once in water, the white, or pure, iron fracture will appear—because no uniform transfusion of carbon can, in this case, occur in cooling.

Also, if white cast-iron be roasted, or, in other words, cemented, the alloyed pure iron imbibes by cementation a portion of the carbon of the cast-iron; and the fracture of the pig, when cold, will be found uniformly gray.

When steel and wrought-iron are fused together quickly, an alloy of soft iron and steel results. In cooling down, the soft iron imbibes carbon from the steel, and the alloy, when cold, is a mixture of hard and soft steel, exhibiting, when polished, a damask surface.

I am surprised to hear "Ferreus" speaking of a *definite compound* of iron and carbon; for he once ridiculed my description of this compound.

I should wish to learn what evidence can be adduced in support of the subtle theory, that carbon changes its condition of affinity for iron, in the transition from No. 1 to white iron. Unfortunately, it happens that the carbon is dissipated more rapidly, and with a greater evolution of carbonic acid from No. 1 iron, when no honeycombs occur, than from any less carbonated quality of iron, wherein the honeycombs are largely developed.

To prove the fusibility of pure iron, as compared with malleable iron, take any quantity of wrought-iron filings, and fuse them with 1-10th part of their weight of pure oxide of iron—the regulus will be pure iron, free from carbon. Next, fuse an equal weight of the wrought-iron, *per se*, the regulus will be cast malleable iron, containing a little less carbon than the original wrought-iron. Place these reguli, in crucibles, side by side in an air-furnace, and bring a steady heat upon them; it will be found that the regulus of pure iron becomes liquid before the second regulus has even lost its form by incipient fusion.—ROBERT MUSHET: *Coleford, July* 10.

REDUCTION OF SILVER ORE.

SIR,—According to the observation made in your last, quoted from a letter received from Valparaiso, persons may suppose that there is a great amount of quicksilver consumed in *all* silver mines, and that salt has no value. The most perfect, economical, and the most expeditious method of reducing silver ore, is the barrel amalgamation, in which process the consumption of quicksilver does not exceed 2 lbs. per ton of ore treated; but the quantity of salt consumed is considerable—viz.: 10 per cent., or nearly 2 cwts., which, at some mines, is nearly six times the value of the quicksilver—consequently, a process, which would cause a reduction in this heavy item, would be much more important to silver mines than the quicksilver. After the sulphurets have been converted into chlorides and sulphates, it is easy to obtain the silver by means of metallic precipitants; but the great practical difficulty in the large scale, is the *convertion of the sulphurets into a soluble salt by means of a cheap method.* E. H.

London, July 11.

REFINING SILVER.

SIR,—Having more than once heard it asserted, that a cake of silver, whilst cooling in the furnace, after the operation termed "refining," gives out a portion of oxygen gas, supposed to be absorbed from the air whilst exposed to it in a state of fusion—in confirmation of which Dr. Ure, in his valuable *Dictionary of Arts, Manufactures, &c.*, states that MM. Lucas and Gay-Lussac have proved that "the quantity of oxygen thus absorbed may amount to 22 times the volume of the silver"—I beg to remark that, from my observations of the phenomenon alluded to, it is very questionable if the said gas be absorbed to the extent implied (if at all); and I think the irregularities of surface in cooling may be accounted for on other grounds. Some years ago (whilst engaged under the London Lead Company) the smelting agent and myself, with a view to proving if oxygen gas was given off, drew out a cake of silver, in the presence, I believe, of Prof. Johnston; and, whilst the ebullitions were going on, we applied lighted paper and pieces of wood to the mouths of the cones; but the combustion was, in no way, increased as would, necessarily, have been the case had there been oxygen gas. I have frequently observed, that a large globule of silver, obtained by assay, sometimes spirts in the cupel, and, at other times, does not, according as it cooled. The silver cake does not cool equally through the mass, first setting at the sides, then over the surface; and the contraction (well known to take place as most bodies cool), by compressing the liquid silver, forces it out in different parts, and, we may assume, at such places as the film, or set surface, is the weakest, and this must obviously continue till all the metal becomes solid. Dr. Lardner says—"The French introduce water through a tube into the cupel, to cool the silver rapidly, to prevent its spirting out, which it does when the refrigeration is gradual." In this case, it can readily be imagined the silver on the surface would, in a given time, become solid to a greater depth than under ordinary circumstances—thus leaving less liquid silver, which could not, prior to cooling and contracting, force its way upwards. If oxygen gas be absorbed, silver that sets without spirting should be specifically heavier than the silver that has parted with that gas; but I am not aware this has ever been proved to be the case.

Though it is of comparatively little importance, whether the ebullitions alluded to arise from contraction, or from absorption of the said gas, yet in metallurgy, as in all other branches of business, it is well to compare theory with facts; and, however trifling the information afforded, it is not to be despised, if correct. I hope to be rectified, if in error, by some party, who may know more of the subject. J. D. STAGG.

Holywell, Flintshire, July 11.

IMPORTATION OF IRON FROM CHINA.

SIR,—In the *Mining Journal*, of July 8, is a notice to this effect—which is incorrect, as far as the *locus a quo* is concerned, but quite in keeping with truth, as respects the *remarkable nature* of the consignment. The iron in question is a coal-smelted iron from magnetic hematite on the Malabar coast of India, called Porto Novo, and forming the manufacturing head-quarters of the Indian Iron Company, of Great Winchester-street, City. The feature respecting this pig-iron, most worthy of remark, is the price at which it can be offered in the British market—*i.e.*, port of London—the value being at Porto Novo not less than 5*l.*, and the freight being from 3*l.* 10*s.* to 4*l.* per ton. Even to make steel at Thames Bank Steel-Works, this figure does not present anything attractive, supposing the steel-making processes, patented by Mr. J. M. Heath, had anything of real utility or advantage in them, and to "puddle" would be "washing the black-a-moor white." This is, at least, the second consignment from the same works to the same order; and, doubtless, of much interest to nobody more than the consignee, who, no doubt, will favour the public with some remarks, either on this letter or the iron, or both. WILLIAM RADLEY, Ch. E.

PNEUMATIC APPARATUS FOR THE WORKING OF MINES.

SIR,—In your interesting Journal of last week, there is described a new invention for facilitating the safe descent and ascent of miners and colliers to and from their subterranean labours, as well as for the more economical mode of raising the produce to the surface. I like the simplicity of the apparatus; and I have no doubt myself but that the plan may effect the object in view, and would be the means of saving many lives; yet, as our proprietors are men of £ *s. d.*, I should like to know, what would be the cost per ton of rising from a depth of 200 fms., at the rate of 4000 lbs. per minute, including stoppages, and also the cost of the apparatus?—Perhaps, the patentee will favour us with these most important particulars in your next.—A. B.: *Birmingham, July* 14.

BORING BY STEAM.

SIR,—In the postcript of Mr. Gard's letter of the 3d instant, he asserts, that one portion of our patent apparatus is not new; but has been in use many years. We hope it will not be asking too much of him to prove his own statement, by furnishing a sketch of the said "sludge gun," as it is called; and state also where, when, and by whom, used in the west, so that we and your readers may judge of the truth of his statements, whether there is the least analogy? I shall take an early opportunity of replying to the other portion of Mr. Gard's letter. C. MATHER.

Salford Iron-Works, July 13.

NATIONAL EXPERIMENTAL WORKSHOPS.

SIR,—We must all own, that one of the greatest evils of modern society is the immense number of unemployed and, consequently, discontented persons, whose numbers are alarmingly augmented in times of commercial depression like the present. Such people having little to do, and much to complain of, are ever ready, at the instigation of factious demagogues, to commence the pulling down of the whole social fabric—considering that, whatever may be the final result of such a movement, they cannot lose much by the process, and may gain by it. Now, my object in addressing you is not to reiterate truisms—but with the view of suggesting, for the consideration of the learned in political and social economy, a labour scheme, which, it seems to me, would at once afford employment for numerous artisans and labourers who may be in need of work, and further facilitate the march of improvement.

It is this—let every large commercial town be provided with experimental workshops, and let labourers of all kinds be on the establishment—viz.: those who can give scientific direction to the physical energies of the operative (and there are many even of this class without employment), those who can labour with practical experience and operative skill, and for their assistance those who can merely operate with their hands. In working out this plan, let any such as have improvements to propose experiment with his own ideas (if they be not the offspring of insanity); let the results be communicated to a central scientific board, who shall regularly publish so much in that regard as may be desirable (and here would be employment for the literary): by this means, I consider that a complete body of experimental philosophy would be attainable for the guidance of manufacturers and artisans.

As regards agriculturists I would pursue a similar system, taking waste lands for experimental farms. In one way, I am certain that such establishments as these, if properly organised, would be of great benefit (provided the Patent Laws are ameliorated)—that is, in assisting inventors in carrying out their ideas at moderate cost; because, in such large establishments, the chances are, that every variety of knowledge and skill would be found without difficulty.—F. W. CAMPIN: 210, *Strand, July* 13.

IRISH RAILWAYS.—The through route between London and Holyhead, and Dublin and Limerick, will be completed in a few weeks. Parliament has sanctioned the steam-boat project of the Holyhead Company, considering that the Liverpool and Dublin routes, and the projected lines through South Wales to Wexford and Dublin, will be sufficiently competing to keep the Holyhead route in check. The South Wales is far from completion, and the Waterford, Wexford, and Dublin line is opposed by its shareholders. The Waterford and Limerick line is also in abeyance as to the Waterford end. The Lords' Committee, of which the Earl of St. Germans was chairman, wished to bind the Holyhead Company to charge no more by sea than by land, and *vice versâ*, but abandoned the proposition on being informed that it was interfering with a toll measure, and would be fatal to the bill in the other House.

OPENING OF PART OF THE WEST RIDING UNION.—The opening of a link only of that extensive scheme of railways in connection with the Lancashire and Yorkshire Railway, known as the West Riding Union, took place on Wednesday. The portion of the line just opened is one which leaves the main line at Mirfield, in Yorkshire, and ascends the beautiful and picturesque valley of Cleckheaton, to Low Moor, a distance of about 7½ miles. It is ultimately intended that this branch shall be carried forward, by way of Bradford, to Leeds (with a fork stretching backwards from Low Moor also to Halifax, to which town there is already a branch from the main line), and thus become the main line, in fact, from Manchester to Leeds. The Acts of the Lancashire and Yorkshire Company embrace that object; and the distance from the present terminus of the line at Low Moor to Bradford is only a little over 2 miles, the works on which are in an advancing state; and, when the whole line by this route is completed, considered in connection with the Liverpool and Bury, very soon to be opened, the Lancashire and Yorkshire Railway will be the shortest route yet projected between Liverpool and Leeds. Like the Liverpool and Bury line, the Cleckheaton Valley link, opened on Wednesday, is looked to with some degree of favourable anticipation, not only as likely to yield a large passenger and general goods traffic, but also a very large traffic in minerals. Indeed, it is a singular fact, that so far back as 1809 or 1810, when locomotive engines were unknown, a railway was projected, and seriously contemplated, through the vale of Cleckheaton, as a means, not of passenger, but of mineral traffic alone. In addition to yielding great accommodation to the neighbourhood through which it passes, this line will also be a great boon to the extensive manufacturing town of Bradford. The valley of Cleckheaton is studded with villages and woollen manufactories, the first 4 or 5 miles have a population of between 30,000 and 40,000 inhabitants, including upwards of 100 blanket manufactories, and many woollen, cloth, and yarn mills. These villages include Heckmondwike and Cleckheaton—the first, with its suburbs, having 10,000; and the latter having about 5000 inhabitants. Low Moor, at the terminus of the line, is the site of one of the largest iron-works in the kingdom, which alone will give a very large traffic over this and the main line—the consumption of lime alone procured at Goole, and used in smelting the ore, being 20,000 tons per annum. The ironstone and coal are procured on the spot, at a depth of 40 yards only; and so far as the consumption of the works is concerned, will not benefit the company; but a vast surplus of the coal is raised which will pass over the line, and especially towards Bradford, when the extra two miles of line, which is in progress, shall be opened. In fact, the tonnage over that part of the line (to Low Moor and back) is estimated at 122,000 tons. The value of Low Moor iron may be gathered from the fact, that whilst the bar-iron of Stafford is now selling at 6*l.* 10*s.* per ton, that of Low Moor is selling at 16*l.*, and its pig-iron at 7*l.* The excursion train, after passing over the whole length of the line, returned to Cleckheaton, drawn by five engines, and carrying between 3000 and 4000 persons, mostly villagers, when the proceedings concluded with a dinner, at which Mr. Wickham presided, and where many of the other directors were present, including Mr. Houldsworth, late chairman of the board, Col. Pollard, and Dr. Buchanan. It was stated, at the last half-yearly meeting of the company, that the capital paid-up of the West Ridings represented by these works (about half) would bear dividend from the 1st of the present month at the same rate with the Lancashire and Yorkshire.

OPENING OF THE CLACKEATON VALLEY RAILWAY.—On Wednesday last this portion of the comprehensive scheme of railways promoted by the Lancashire and Yorkshire Railway Company, was formally opened by the directors, accompanied by several bands of music and a large number of banners.

SUNDERLAND—THE HIGH LEVEL BRIDGE AND ITS APPROACHES.—These works are progressing with great rapidity, and it is expected that, in about seven weeks, the approaches, together with the artificial structure across the Tyne, will be completed, by which a junction of the railway terminus between Gateshead and Newcastle will be effected. It is also expected that the temporary bridge across the Tweed will be completed by September or October, thus enabling the trains to proceed throughout from Edinburgh to London.

THE TUBULAR BRIDGES.—We had an opportunity last week of inspecting the stupendous iron tubes which are in course of construction a short distance above the Menai Suspension-bridge, for the purpose of forming a passage for the trains of the Holyhead Railway across the Strait. Immense piers of granite are being erected on each side of the Strait, and a massive pier of the same material is rising in the middle of the stream. On these solid masses of masonry the vast hollow metallic ways will rest, forming a line continuous with the railway. The most cursory inspection of the tubes will at once convince the spectator of their prodigious strength, and show them to be capable of sustaining a far greater weight than any that is likely to pass across them. They are not either cylindrical or elliptical, as many have supposed, but rectangular—their form being what is not uncommonly called an oblong square, about 30 ft. high, and 15 ft. wide. They are constructed of thick plates of iron, firmly rivetted together, and strengthened by girders at the top and bottom. The chief element of strength, however, is in the bed or base of the work, which is composed of plates of iron set edgewise, so as to form cells, the under and upper surfaces being firmly rivetted to the intermediate perpendicular plates—the whole, with the walls of the tube and its covering, firmly girded and bound together with the utmost skill and ingenuity, forming a compact piece of workmanship, and the strength of which is beyond conception. These enormous tubes are built on stages erected over the stream. The spectator wonders, when contemplating them, how fabrics of such stupendous weight, amounting to many thousands of tons, are to be removed, and lifted into the position which they are destined to occupy. They will be floated to the piers on pontoons, and lifted to their final resting-place by hydraulic pressure. On the same day we passed, in the evening train of the Holyhead Railway, through the tube at Conway. As the train was proceeding at considerable speed, the passage was effected almost in an instant. We were not conscious of any vibration, or, indeed, of any sensation different from that experienced in passing through an ordinary tunnel. The Holyhead Railway will be a great favourite with tourists and those who travel for pleasure. The prospects from the carriages on both sides are exceedingly interesting. The line runs principally along the sea-coast and the banks of the Dee, so that throughout nearly the whole journey from Bangor to Chester, we have on one side a fine view of the Irish sea, and on the other a perpetually-changing succession of mountain scenery.—*Liverpool Albion.*

SOUTH DEVON RAILWAY.—The telegraph upon the line has been completed during the week to Laira, and is now, we believe, in full operation. The directors having agreed with Mr. Rendle, during the past week, will forthwith take possession of a portion of the nursery in his occupation, between Devonshire-terrace and King-street, and the works will be recommenced without delay. The Dainton engine-house and engines are in a great state of forwardness; the engines, which are being built by Boulton and Watt, are of immense size, and are constructed differently from those at the other stations; they will work horizontally, instead of perpendicularly; the exhausting cylinders are 7 feet 8 inches in diameter. About five miles of pipe are laid between Newton and Totnes. The Totnes engines are not so forward; in fact, it is said, the engines at that station will not be required for the opening to Totnes, as the powerful Dainton engines would create a vacuum sufficient before the train passed Dainton, to take it down to Totnes, and *vice versâ*. We are sorry to find that the Torquay branch is not being pushed. We had hoped that this capital feeder for the trunk line would have been finished ere this.—*Western Luminary.*

NEW PATENTS.

W. O. Palmer, Southacre, near Swaffham, Norfolk, farmer, for improvements in machinery for threshing and dressing corn.

A. Lorimer, Bell's-buildings, Salisbury-square, City, book-binder, for improvements in combining gutta percha and caoutchouc with other materials.

R. Roberts, Globe Works, Manchester, engineer, for certain improvements in and applicable to clocks and other time-keepers, in machinery or apparatus for winding clocks and hoisting weights, and for effecting telegraphic communications between distant clocks and places otherwise than by electro-magnetism.

L. Castelain, Poulton-square, Middlesex, chemist, for improvements in the manufacture of soap.

F. A. F. de Beauregard, Paris, engineer, for improvements in generating steam, and in the means of obtaining power from steam-engines.

M. Kirtley, Derby, engineer, for improvements in the manufacture of railway wheels.

J. Ross, Leicester, agent, for improvements in apparatus for dibbling and other agricultural purposes; part of which improvements are applicable to propelling vessels.

W. E. Snaite, Lombard-street, City, gentleman, for improvements in the construction of galvanic batteries, in the formation of magnets, and in the application of electricity and magnetism for the purpose of lighting and signalising, as also a mode or modes of employing the said galvanic batteries, or some of them, for the purpose of obtaining chemical products; part of which improvements are a communication.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

C. Greenway, Park-street, Grosvenor-square, stock.
R. Restell, Croydon, cylindrical brooch protector.
G. F. Morrell, Fleet-street, flower and plant label.
J. Sparks, King-street, Tower-hill, railway dispatch and cash box.
W. N. Nicholson, Newark-on-Trent, Newark cottage range.
W. B. Tibbits, Branston, spring holdfast for window sashes.
W. R. Sobey, Exeter, spring lock for a brooch.
G. Dickson, New Bond-street, artists' vade-mecum.—*Mechanics' Magazine.*

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Bate's West Hartley 13 6—Buddle's West Hartley 13 9—Hasting's Hartley 13 9—Holywell Main 14—New Tanfield 12 6—North Percy Hartley 13 6—South Peareth 12—Townley 13—Wylam 13—West Wylam 13—Wall's End Brown's 13 3—Gosforth 14 3—Hedley 14 6—Hedworth 13—Hilda 14—Belmont 15 3—Haswell 16 3—Hetton 16—Russell's Hetton 15 6—Caradoc 15—Kelloe 14 3—Seymour Tees 14 6—South Durham 14 3—Tees 15 9—Powell's Duffryn Steam 20.—Ships at market, 46.

WEDNESDAY.—Buddle's West Hartley 14 3—Carr's Hartley 14 3—Chester Main 13 6—Davison's West Hartley 14 3—East Adair's Main 12—Hasting's Hartley 14—Holywell Main 14—North Pontop 11 6—Original Tanfield 11—Tanfield Moor 13 6—Townley 13—Walker's Primrose 12—Wylam 13—West Wylam 13—Wall's End Acorn Close 14—Brown's 13 3—Elm Park 13 9—Framwellgate 14—Gibson 14—Hedley 14 6—Hedworth 14 3—Washington 13 6—Eden Main 14 6—Lambton's Primrose 14 9—Braddyll's Hetton 15 3—Bell 15—East Hetton 14—Haswell 16 3—Hetton 16—Keepier 15 6—Lambton 15 6—Morrison 14 3—Russel's Hetton 15 6—Stewart's 16—Caradoc 15—Hartlepool 16—Hudson's Hartlepool 14—Heugh Hall 14 3—South Hartlepool 15—Thornley 14 6—Adelaide 15—South Durham 14 3—Tees 15 9—West Cornforth 14—West Tees 14—Cowpen Hartley 14 3—Derwentwater Hartley 13 9—Howard's West Hartley Netherton 14 3—Hartley 14—Powell's Duffryn Steam 20 3.—Ships at market, 202; sold, 123.

FRIDAY.—Bate's West Hartley 13 9—Buddle's West Hartley 14 3—Adair's Main 12—Hasting's Hartley 14 3—Holywell Main 14—North Percy Hartley 13 9—Original Tanfield 11 3—Tanfield Moor 13 6—Townley 13—Wall's End Bewicke & Co. 14 3—Brown's 13 3—Hedworth 13—Harton 14 3—Hilda 14—Riddell's 14 3—Walker 14—Eden Main 15—Belmont 15—Haswell 16 3—Hetton 16—Jonassohns 14—Lambton 15 9—Morrison 14 6—Shotton 15—Stewart's 16—Caradoc 15 3—Hudson's Hartlepool 14 6—Heugh Hall 14 3—Kelloe 14 6—Adelaide 15—Seymour Tees 14 6—West Hetton 14 3—Cowpen Hartley 14 6—West Hartley Netherton 14 3—Haigh Moor 12 9—Powell's Duffryn Steam 20 6.—Ships at market, 91; sold, 52.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The NEXT MEETING will be HELD at SWANSEA, and will COMMENCE on WEDNESDAY, the 9th of August, 1848.
2, Duke-street, Adelphi. JOHN TAYLOR, F.R.S., General Treasurer.

TWENTY-SECOND REPORT OF THE LONDON JOINT-STOCK BANK.—At a General Meeting of the shareholders, held at the banking-house of the company, in Princes-street, Mansion-house, on Thursday, 13th July, 1848,
Sir RICHARD JENKINS, G.C.B., Chairman.
AMBROSE MOORE, Esq., Deputy-Chairman.

DIRECTORS.

Sir Felix Booth, Bart.	William James Lancaster, Esq.
Sir George Carroll, Alderman.	Sir John M'Taggart, Bart., M.P.
William Miller Christy, Esq.	George Meek, Esq.
William Curling, Esq.	William Metcalfe, Esq.
George Holgate Foster, Esq.	Ambrose Moore, Esq.
William Ormsby Gore, Esq.	John Timothy Oxley, Esq.
Henry Grace, Esq.	George Scholefield, Esq.
Sir Richard Jenkins, G.C.B.	William Shadbolt, Esq.
Archibald Hastie, Esq., M.P.	George Tayler, Esq.

THE MANAGER—George Pollard, Esq.
SOLICITORS—Messrs. Tilson, Squance, Clarke, and Morice.

The following report was presented:—

The directors have the satisfaction of laying before the shareholders the half-yearly balance-sheet, ending the 30th ult., showing the net profit of the bank, for that period, to be £33,490 3s. 8d., out of which the sum of £18,000 has been appropriated for the payment of the half-yearly dividend, at the rate of £6 per centum per annum; and the balance of profit, amounting to £15,490 3s. 8d., is held over for disposal at the end of the year.—The dividend will be payable on and after Friday, the 21st inst.

The preceding report having been read to the meeting by the secretary, a dividend for the half-year, ending the 30th of June last, after the rate of £6 per centum per annum, was declared by the chairman.

Resolved unanimously,—That the report now read be received, and that a copy thereof be sent to each shareholder.

Resolved unanimously,—That the best thanks of this meeting be given to the chairman and directors, for their excellent management of the affairs of the bank.

Resolved unanimously,—That the cordial thanks of the shareholders be presented also to George Pollard, Esq., the manager.

(Signed) RICHARD JENKINS, Chairman.
[Extracted from the minutes. (Signed) F. HEWETT, Secretary.

RAILWAY AND OTHER IMPORTANT RECORDS, EFFECTUALLY PROTECTED FROM DAMP AND VERMIN.

Extract from the Appendix to the Second Report of the Commissioners on the Fine Arts.

"In 1839, I superintended the construction of a house, of three stories, on the Lac d'Enghein. The foundation of the building is constantly in water, about 19½ inches below the level of the ground floor. The entire horizontal surface of the external and internal walls was covered at the level of the internal ground floor with a layer of

SEYSSEL ASPHALTE,*

less than half an inch thick, over which coarse sand was spread. Since the above date, no trace of damp has shown itself round the walls of the lower story, which are, for the most part, painted in oil, of a grey stone colour. It is well known that the least moisture produces round spots, darker or lighter, on walls so painted. Yet the pavement of the floor, resting on the soil itself, is only about 2½ inches above the external surface of the soil, and only 19½, at the utmost, above that of the sheet of water. The layer of asphalte having been broken and removed, for the purpose of inserting the sills of two doors, spots, indicating the presence of damp, have been since remarked at the base of the door-posts.

The DIRECTORS of the SEYSSEL ASPHALTE COMPANY have much pleasure in recommending to the notice of ENGINEERS and ARCHITECTS the application of the ASPHALTE of SEYSSEL, as the *only effectual* mode of preventing damp in basement floors, and water from percolating through the ARCHES of a VIADUCT.

The arrangements of this company enable works of any extent to be executed with the greatest promptitude. I. FARRELL, Secretary.

SEYSSEL ASPHALTE DEPOT, STANGATE, LONDON.
ESTABLISHED 1838.

* This method has been adopted at the New Houses of Parliament.

LAP-WELDED IRON TUBES.
W. H. RICHARDSON, Jun., and CO.,
MANUFACTURE every description of WROUGHT-IRON TUBES, for Locomotive and Marine Boilers, Gas, Steam, and other purposes.
PATENT TUBE WORKS,
DARLASTON, STAFFORDSHIRE.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES, AND CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.
DENT'S PATENT DIPLIEDOSCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

MECHANICS' MAGAZINE.—Just published, Vol. XLVIII., complete, price, cloth and lettered, 7s.; published also in weekly Nos., price 3d.—stamped 4d.—"The *Mechanics' Magazine* has conferred lasting advantages on the manufactures of the country."—*Report of Select Committee of the House of Commons on the Arts of Design.*
Mechanics' Magazine, Patent and Designs Registration Office, 166, Fleet-street.

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